



BARGE "EMS 510"

INNAGE TRIM TABLE

	1 FT.		2 FT.		3 FT.		4 FT.		5 FT.		6 FT.	
	<u>BOW</u>	<u>STERN</u>	<u>BOW</u>	<u>STERN</u>	<u>BOW</u>	<u>STERN</u>	<u>BOW</u>	<u>STERN</u>	<u>BOW</u>	<u>STERN</u>	<u>BOW</u>	<u>STERN</u>
1 PORT	- 00-1/2	00-1/2	- 01-1/8	01-1/8	- 01-5/8	01-5/8	- 02-1/8	02-1/8	- 02-3/4	02-3/4	- 03-1/4	03-1/4
1 STBD	- 00-1/2	00-1/2	- 01-1/8	01-1/8	- 01-5/8	01-5/8	- 02-1/8	02-1/8	- 02-3/4	02-3/4	- 03-1/4	03-1/4
2 PORT	00-0/8	- 00-0/8	00-1/8	- 00-1/8	00-1/8	- 00-1/8	00-1/4	- 00-1/4	00-1/4	- 00-1/4	00-1/4	- 00-1/4
2 STBD	00-0/8	- 00-0/8	00-1/8	- 00-1/8	00-1/8	- 00-1/8	00-1/4	- 00-1/4	00-1/4	- 00-1/4	00-1/4	- 00-1/4
3 PORT	00-0/8	- 00-0/8	00-1/8	- 00-1/8	00-1/8	- 00-1/8	00-1/4	- 00-1/4	00-1/4	- 00-1/4	00-1/4	- 00-1/4
3 STBD	00-0/8	- 00-0/8	00-1/8	- 00-1/8	00-1/8	- 00-1/8	00-1/4	- 00-1/4	00-1/4	- 00-1/4	00-1/4	- 00-1/4

(ALL MEASUREMENTS ABOVE ARE IN INCHES)

EXAMPLE FOR ABOVE TRIM CORRECTIONS:

$$\begin{aligned} \text{FWD. DRAFT} &= 2'-00" \\ \text{AFT DRAFT} &= 4'-00" \\ \text{DIFF.} &= 2'-00" \quad (\text{DOWN BY STERN}) \end{aligned}$$

THE CORRECTION FOR 2'-00" TRIM DOWN BY STERN FOR 2 PORT IS - 00-1/8"
FOR A MEASURED INNAGE GAUGE OF 4'-00" ON 2 PORT, THE TRIM CORRECTED INNAGE IS 3'-11 7/8"

LENGTH BETWEEN DRAFT MARKS: 259'-00"

November 16, 2018

PRECISION MEASUREMENT
& ANALYSIS, INC.
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BARGE "EMS 510"

1 PORT INNAGE TABLE

CAPACITIES GIVEN IN BARRELS OF 42 U.S. GALLONS

0 FT.		1 FT.		2 FT.		3 FT.		4 FT.		5 FT.		6 FT.		7 FT.		8 FT.		9 FT.	
IN	0 FT.	IN	1 FT.	IN	2 FT.	IN	3 FT.	IN	4 FT.	IN	5 FT.	IN	6 FT.	IN	7 FT.	IN	8 FT.	IN	9 FT.
0	21.42	0	355.77	0	717.61	0	1,080.47	0	1,443.32	0	1,806.43	0	2,169.53	0	2,532.64	0	2,895.65	0	3,258.62
1/4	25.66	1/4	363.19	1/4	725.17	1/4	1,088.02	1/4	1,450.89	1/4	1,813.99	1/4	2,177.10	1/4	2,540.20	1/4	2,903.21	1/4	3,266.18
1/2	29.90	1/2	370.60	1/2	732.74	1/2	1,095.57	1/2	1,458.45	1/2	1,821.56	1/2	2,184.66	1/2	2,547.77	1/2	2,910.77	1/2	3,273.74
3/4	34.14	3/4	378.02	3/4	740.30	3/4	1,103.12	3/4	1,466.02	3/4	1,829.12	3/4	2,192.23	3/4	2,555.33	3/4	2,918.33	3/4	3,281.31
1	38.38	1	385.44	1	747.86	1	1,110.68	1	1,473.58	1	1,836.69	1	2,199.79	1	2,562.90	1	2,925.90	1	3,288.87
1/4	43.88	1/4	392.85	1/4	755.43	1/4	1,118.23	1/4	1,481.14	1/4	1,844.25	1/4	2,207.36	1/4	2,570.46	1/4	2,933.46	1/4	3,296.43
1/2	49.38	1/2	400.27	1/2	762.99	1/2	1,125.78	1/2	1,488.71	1/2	1,851.81	1/2	2,214.92	1/2	2,578.03	1/2	2,941.02	1/2	3,303.99
3/4	54.88	3/4	407.69	3/4	770.56	3/4	1,133.33	3/4	1,496.27	3/4	1,859.38	3/4	2,222.49	3/4	2,585.59	3/4	2,948.58	3/4	3,311.55
2	60.38	2	415.10	2	778.12	2	1,140.89	2	1,503.84	2	1,866.94	2	2,230.05	2	2,593.16	2	2,956.14	2	3,319.12
1/4	67.14	1/4	422.65	1/4	785.69	1/4	1,148.44	1/4	1,511.40	1/4	1,874.51	1/4	2,237.61	1/4	2,600.72	1/4	2,963.71	1/4	3,326.68
1/2	73.90	1/2	430.20	1/2	793.25	1/2	1,155.99	1/2	1,518.97	1/2	1,882.07	1/2	2,245.18	1/2	2,608.28	1/2	2,971.27	1/2	3,334.24
3/4	80.66	3/4	437.74	3/4	800.82	3/4	1,163.54	3/4	1,526.53	3/4	1,889.64	3/4	2,252.74	3/4	2,615.85	3/4	2,978.83	3/4	3,341.80
3	87.42	3	445.29	3	808.38	3	1,171.10	3	1,534.10	3	1,897.20	3	2,260.31	3	2,623.41	3	2,986.39	3	3,349.36
1/4	94.90	1/4	452.85	1/4	815.94	1/4	1,178.65	1/4	1,541.66	1/4	1,904.77	1/4	2,267.87	1/4	2,630.98	1/4	2,993.95	1/4	3,356.92
1/2	102.37	1/2	460.42	1/2	823.51	1/2	1,186.20	1/2	1,549.23	1/2	1,912.33	1/2	2,275.44	1/2	2,638.54	1/2	3,001.52	1/2	3,364.49
3/4	109.84	3/4	467.98	3/4	831.07	3/4	1,193.75	3/4	1,556.79	3/4	1,919.90	3/4	2,283.00	3/4	2,646.10	3/4	3,009.08	3/4	3,372.05
4	117.31	4	475.55	4	838.64	4	1,201.30	4	1,564.36	4	1,927.46	4	2,290.57	4	2,653.67	4	3,016.64	4	3,379.61
1/4	124.86	1/4	483.11	1/4	846.20	1/4	1,208.86	1/4	1,571.92	1/4	1,935.03	1/4	2,298.13	1/4	2,661.23	1/4	3,024.20	1/4	3,387.17
1/2	132.41	1/2	490.68	1/2	853.77	1/2	1,216.41	1/2	1,579.49	1/2	1,942.59	1/2	2,305.70	1/2	2,668.79	1/2	3,031.76	1/2	3,394.73
3/4	139.96	3/4	498.24	3/4	861.33	3/4	1,223.96	3/4	1,587.05	3/4	1,950.16	3/4	2,313.26	3/4	2,676.35	3/4	3,039.32	3/4	3,402.30
5	147.51	5	505.80	5	868.90	5	1,231.51	5	1,594.62	5	1,957.72	5	2,320.83	5	2,683.92	5	3,046.89	5	3,409.86
1/4	155.06	1/4	513.37	1/4	876.46	1/4	1,239.08	1/4	1,602.18	1/4	1,965.29	1/4	2,328.39	1/4	2,691.48	1/4	3,054.45	1/4	3,417.42
1/2	162.61	1/2	520.93	1/2	884.02	1/2	1,246.64	1/2	1,609.74	1/2	1,972.85	1/2	2,335.96	1/2	2,699.04	1/2	3,062.01	1/2	3,424.98
3/4	170.16	3/4	528.50	3/4	891.59	3/4	1,254.20	3/4	1,617.31	3/4	1,980.41	3/4	2,343.52	3/4	2,706.60	3/4	3,069.57	3/4	3,432.54
6	177.70	6	536.06	6	899.15	6	1,261.77	6	1,624.87	6	1,987.98	6	2,351.08	6	2,714.16	6	3,077.13	6	3,440.11
1/4	185.14	1/4	543.63	1/4	906.72	1/4	1,269.33	1/4	1,632.44	1/4	1,995.54	1/4	2,358.65	1/4	2,721.72	1/4	3,084.70	1/4	3,447.67
1/2	192.57	1/2	551.19	1/2	914.28	1/2	1,276.90	1/2	1,640.00	1/2	2,003.11	1/2	2,366.21	1/2	2,729.29	1/2	3,092.26	1/2	3,455.23
3/4	200.00	3/4	558.76	3/4	921.85	3/4	1,284.46	3/4	1,647.57	3/4	2,010.67	3/4	2,373.78	3/4	2,736.85	3/4	3,099.82	3/4	3,462.79
7	207.44	7	566.32	7	929.41	7	1,292.03	7	1,655.13	7	2,018.24	7	2,381.34	7	2,744.41	7	3,107.38	7	3,470.35
1/4	214.85	1/4	573.88	1/4	936.96	1/4	1,299.59	1/4	1,662.70	1/4	2,025.80	1/4	2,388.91	1/4	2,751.97	1/4	3,114.94	1/4	3,477.91
1/2	222.27	1/2	581.45	1/2	944.52	1/2	1,307.16	1/2	1,670.26	1/2	2,033.37	1/2	2,396.47	1/2	2,759.53	1/2	3,122.51	1/2	3,485.48
3/4	229.69	3/4	589.01	3/4	952.07	3/4	1,314.72	3/4	1,677.83	3/4	2,040.93	3/4	2,404.04	3/4	2,767.10	3/4	3,130.07	3/4	3,493.04
8	237.10	8	596.58	8	959.63	8	1,322.29	8	1,685.39	8	2,048.50	8	2,411.60	8	2,774.66	8	3,137.63	8	3,500.60
1/4	244.52	1/4	604.14	1/4	967.18	1/4	1,329.85	1/4	1,692.96	1/4	2,056.06	1/4	2,419.17	1/4	2,782.22	1/4	3,145.19	1/4	3,508.16
1/2	251.94	1/2	611.71	1/2	974.73	1/2	1,337.42	1/2	1,700.52	1/2	2,063.63	1/2	2,426.73	1/2	2,789.78	1/2	3,152.75	1/2	3,515.72
3/4	259.35	3/4	619.27	3/4	982.28	3/4	1,344.98	3/4	1,708.09	3/4	2,071.19	3/4	2,434.30	3/4	2,797.34	3/4	3,160.32	3/4	3,523.29
9	266.77	9	626.83	9	989.84	9	1,352.54	9	1,715.65	9	2,078.78	9	2,441.86	9	2,804.91	9	3,167.88	9	3,530.85
1/4	274.19	1/4	634.40	1/4	997.39	1/4	1,360.11	1/4	1,723.21	1/4	2,086.32	1/4	2,449.43	1/4	2,812.47	1/4	3,175.44	1/4	3,538.41
1/2	281.60	1/2	641.96	1/2	1,004.94	1/2	1,367.67	1/2	1,730.78	1/2	2,093.89	1/2	2,456.99	1/2	2,820.03	1/2	3,183.00	1/2	3,546.97
3/4	289.02	3/4	649.53	3/4	1,012.49	3/4	1,375.24	3/4	1,738.34	3/4	2,101.45	3/4	2,464.56	3/4	2,827.59	3/4	3,190.56	3/4	3,553.53
10	296.44	10	657.09	10	1,020.05	10	1,382.80	10	1,745.91	10	2,109.01	10	2,472.12	10	2,835.15	10	3,198.12	10	3,561.10
1/4	303.85	1/4	664.66	1/4	1,027.60	1/4	1,390.37	1/4	1,753.47	1/4	2,116.58	1/4	2,479.68	1/4	2,842.72	1/4	3,205.89	1/4	3,568.66
1/2	311.27	1/2	672.22	1/2	1,035.15	1/2	1,397.93	1/2	1,761.04	1/2	2,124.14	1/2	2,487.25	1/2	2,850.28	1/2	3,213.25	1/2	3,576.22
3/4	318.69	3/4	679.79	3/4	1,042.70	3/4	1,405.50	3/4	1,768.60	3/4	2,131.71	3/4	2,494.81	3/4	2,857.84	3/4	3,220.81	3/4	3,583.78
11	326.10	11	687.35	11	1,050.26	11	1,413.06	11	1,776.17	11	2,139.27	11	2,502.38	11	2,865.40	11	3,228.37	11	3,591.34
1/4	333.52	1/4	694.91	1/4	1,057.81	1/4	1,420.63	1/4	1,783.73	1/4	2,146.84	1/4	2,509.94	1/4	2,872.96	1/4	3,235.93	1/4	3,598.91
1/2	340.94	1/2	702.48	1/2	1,065.36	1/2	1,428.19	1/2	1,791.30	1/2	2,154.40	1/2	2,517.51	1/2	2,880.52	1/2	3,243.50	1/2	3,606.47
3/4	348.35	3/4	710.04	3/4	1,072.91	3/4	1,435.76	3/4	1,798.86	3/4	2,161.97	3/4	2,525.07	3/4	2,888.09	3/4	3,251.06	3/4	3,614.03

BARGE STRAPPED AND COMPUTED IN ACCORDANCE WITH IPMS CHAPTER 2.7.

CAPACITY TABLE ONLY APPLIES WHEN BARGE IS ON EVEN KEEL.

CAPACITY TABLE ONLY APPLIES TO INNAGE GAUGES TAKEN TO TOP LIP OF 2" HERMETIC VALVE.

GAUGE POINT: (HERMETIC) LOCATED 10'-06" OFF CENTERLINE AND 55'-03" FORWARD OF AFT BULKHEAD.

CERTIFIED CHART FOR THE ABOVE NAMED TANK ONLY.

PRECISION MEASUREMENT
& ANALYSIS, INC.

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<http://www.pmacorp.net>



BARGE "EMS 510"

1 PORT INNAGE TABLE

CAPACITIES GIVEN IN BARRELS OF 42 U.S. GALLONS

10 FT.		11 FT.		12 FT.		13 FT.		14 FT.		15 FT.		16 FT.		17 FT.		18 FT.		19 FT.	
IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT
0	3,621.59	0	3,984.56	0	4,346.85	0	4,695.69	0	5,026.20	0	5,343.61	0	5,655.84	0	5,955.84	0	6,243.61	0	6,519.16
1/4	3,629.15	1/4	3,992.12	1/4	4,354.29	1/4	4,702.75	1/4	5,033.61	1/4	5,351.02	1/4	5,663.31	1/4	5,963.31	1/4	6,251.02	1/4	6,526.57
1/2	3,636.71	1/2	3,999.69	1/2	4,361.73	1/2	4,709.81	1/2	5,041.02	1/2	5,358.39	1/2	5,670.68	1/2	5,970.68	1/2	6,258.39	1/2	6,534.14
3/4	3,644.28	3/4	4,007.25	3/4	4,369.17	3/4	4,716.87	3/4	5,048.43	3/4	5,365.80	3/4	5,678.09	3/4	5,978.09	3/4	6,266.10	3/4	6,541.70
1	3,651.84	1	4,014.81	1	4,376.61	1	4,723.93	1	5,055.84	1	5,373.21	1	5,685.50	1	5,985.50	1	6,273.61	1	6,549.26
1 1/4	3,659.40	1 1/4	4,022.37	1 1/4	4,384.02	1 1/4	4,730.93	1 1/4	5,063.31	1 1/4	5,382.69	1 1/4	5,694.98	1 1/4	5,994.98	1 1/4	6,281.02	1 1/4	6,556.81
1 1/2	3,666.96	1 1/2	4,029.93	1 1/2	4,391.44	1 1/2	4,737.93	1 1/2	5,070.77	1 1/2	5,392.15	1 1/2	5,704.44	1 1/2	6,004.44	1 1/2	6,288.53	1 1/2	6,564.37
1 3/4	3,674.52	1 3/4	4,037.50	1 3/4	4,398.85	1 3/4	4,744.93	1 3/4	5,078.24	1 3/4	5,401.52	1 3/4	5,713.81	1 3/4	6,013.81	1 3/4	6,296.04	1 3/4	6,571.91
2	3,682.09	2	4,045.06	2	4,406.26	2	4,751.94	2	5,085.70	2	5,408.99	2	5,721.28	2	6,021.28	2	6,303.51	2	6,579.38
2 1/4	3,689.65	2 1/4	4,052.62	2 1/4	4,413.84	2 1/4	4,758.90	2 1/4	5,093.16	2 1/4	5,416.45	2 1/4	5,728.74	2 1/4	6,031.74	2 1/4	6,313.97	2 1/4	6,586.84
2 1/2	3,697.21	2 1/2	4,060.18	2 1/2	4,421.02	2 1/2	4,765.87	2 1/2	5,100.63	2 1/2	5,423.12	2 1/2	5,735.41	2 1/2	6,040.41	2 1/2	6,322.64	2 1/2	6,594.40
2 3/4	3,704.77	2 3/4	4,067.74	2 3/4	4,428.40	2 3/4	4,772.84	2 3/4	5,108.09	2 3/4	5,430.61	2 3/4	5,742.90	2 3/4	6,048.90	2 3/4	6,330.13	2 3/4	6,601.96
3	3,712.33	3	4,075.31	3	4,435.78	3	4,779.80	3	5,115.55	3	5,438.04	3	5,750.33	3	6,052.62	3	6,342.36	3	6,609.52
3 1/4	3,719.90	3 1/4	4,082.87	3 1/4	4,443.13	3 1/4	4,786.74	3 1/4	5,123.02	3 1/4	5,445.31	3 1/4	5,757.60	3 1/4	6,060.90	3 1/4	6,350.89	3 1/4	6,617.09
3 1/2	3,727.46	3 1/2	4,090.43	3 1/2	4,450.48	3 1/2	4,793.68	3 1/2	5,130.48	3 1/2	5,452.77	3 1/2	5,765.06	3 1/2	6,068.46	3 1/2	6,358.42	3 1/2	6,624.59
3 3/4	3,735.02	3 3/4	4,097.99	3 3/4	4,457.83	3 3/4	4,800.62	3 3/4	5,137.94	3 3/4	5,460.22	3 3/4	5,772.51	3 3/4	6,076.01	3 3/4	6,366.01	3 3/4	6,632.18
4	3,742.58	4	4,105.55	4	4,465.17	4	4,807.55	4	5,145.41	4	5,472.71	4	5,785.00	4	6,088.50	4	6,373.50	4	6,639.74
4 1/4	3,750.14	4 1/4	4,113.11	4 1/4	4,472.49	4 1/4	4,814.46	4 1/4	5,152.87	4 1/4	5,480.28	4 1/4	5,792.57	4 1/4	6,095.07	4 1/4	6,381.07	4 1/4	6,647.30
4 1/2	3,757.71	4 1/2	4,120.68	4 1/2	4,479.80	4 1/2	4,821.36	4 1/2	5,160.33	4 1/2	5,487.77	4 1/2	5,799.06	4 1/2	6,102.56	4 1/2	6,388.56	4 1/2	6,654.86
4 3/4	3,765.27	4 3/4	4,128.24	4 3/4	4,487.11	4 3/4	4,828.26	4 3/4	5,167.80	4 3/4	5,495.26	4 3/4	5,806.55	4 3/4	6,113.05	4 3/4	6,396.06	4 3/4	6,662.42
5	3,772.83	5	4,135.80	5	4,494.43	5	4,835.17	5	5,175.26	5	5,492.71	5	5,804.00	5	6,115.50	5	6,401.00	5	6,669.98
5 1/4	3,780.39	5 1/4	4,143.36	5 1/4	4,501.71	5 1/4	4,842.04	5 1/4	5,182.59	5 1/4	5,500.08	5 1/4	5,811.37	5 1/4	6,122.67	5 1/4	6,408.67	5 1/4	6,677.54
5 1/2	3,787.95	5 1/2	4,150.92	5 1/2	4,508.99	5 1/2	4,848.91	5 1/2	5,189.91	5 1/2	5,507.40	5 1/2	5,818.69	5 1/2	6,129.98	5 1/2	6,415.98	5 1/2	6,685.04
5 3/4	3,795.51	5 3/4	4,158.49	5 3/4	4,516.28	5 3/4	4,855.78	5 3/4	5,197.24	5 3/4	5,514.73	5 3/4	5,825.02	5 3/4	6,136.31	5 3/4	6,423.31	5 3/4	6,692.60
6	3,803.08	6	4,166.05	6	4,523.56	6	4,862.65	6	5,204.57	6	5,522.06	6	5,832.35	6	6,143.64	6	6,430.64	6	6,700.16
6 1/4	3,810.64	6 1/4	4,173.61	6 1/4	4,530.81	6 1/4	4,869.49	6 1/4	5,210.91	6 1/4	5,528.40	6 1/4	5,838.69	6 1/4	6,149.98	6 1/4	6,438.14	6 1/4	6,707.72
6 1/2	3,818.20	6 1/2	4,181.17	6 1/2	4,538.07	6 1/2	4,876.32	6 1/2	5,217.25	6 1/2	5,534.74	6 1/2	5,845.03	6 1/2	6,157.53	6 1/2	6,445.74	6 1/2	6,715.32
6 3/4	3,825.76	6 3/4	4,188.73	6 3/4	4,545.32	6 3/4	4,883.16	6 3/4	5,223.59	6 3/4	5,541.08	6 3/4	5,851.37	6 3/4	6,165.03	6 3/4	6,453.34	6 3/4	6,722.88
7	3,833.32	7	4,196.30	7	4,552.57	7	4,890.00	7	5,229.93	7	5,547.42	7	5,857.71	7	6,168.00	7	6,460.94	7	6,730.44
7 1/4	3,840.89	7 1/4	4,203.86	7 1/4	4,559.79	7 1/4	4,896.81	7 1/4	5,235.05	7 1/4	5,552.54	7 1/4	5,862.83	7 1/4	6,175.33	7 1/4	6,468.55	7 1/4	6,738.04
7 1/2	3,848.45	7 1/2	4,211.42	7 1/2	4,567.01	7 1/2	4,903.62	7 1/2	5,240.18	7 1/2	5,559.10	7 1/2	5,869.39	7 1/2	6,182.83	7 1/2	6,476.16	7 1/2	6,745.60
7 3/4	3,856.01	7 3/4	4,218.98	7 3/4	4,574.23	7 3/4	4,910.43	7 3/4	5,245.30	7 3/4	5,566.59	7 3/4	5,876.88	7 3/4	6,190.32	7 3/4	6,483.77	7 3/4	6,753.16
8	3,863.57	8	4,226.54	8	4,581.45	8	4,917.24	8	5,250.43	8	5,571.92	8	5,882.21	8	6,197.81	8	6,491.38	8	6,760.72
8 1/4	3,871.13	8 1/4	4,234.10	8 1/4	4,588.63	8 1/4	4,924.02	8 1/4	5,255.60	8 1/4	5,577.29	8 1/4	5,887.58	8 1/4	6,203.30	8 1/4	6,500.00	8 1/4	6,768.28
8 1/2	3,878.70	8 1/2	4,241.66	8 1/2	4,595.82	8 1/2	4,930.79	8 1/2	5,260.77	8 1/2	5,582.46	8 1/2	5,892.75	8 1/2	6,210.81	8 1/2	6,507.61	8 1/2	6,775.84
8 3/4	3,886.26	8 3/4	4,249.22	8 3/4	4,603.01	8 3/4	4,937.57	8 3/4	5,265.94	8 3/4	5,587.73	8 3/4	5,898.02	8 3/4	6,218.32	8 3/4	6,515.12	8 3/4	6,783.40
9	3,893.82	9	4,256.78	9	4,610.19	9	4,944.35	9	5,271.11	9	5,592.85	9	5,903.14	9	6,225.84	9	6,522.64	9	6,790.96
9 1/4	3,901.38	9 1/4	4,264.32	9 1/4	4,617.35	9 1/4	4,951.10	9 1/4	5,276.28	9 1/4	5,600.00	9 1/4	5,910.29	9 1/4	6,233.36	9 1/4	6,529.76	9 1/4	6,800.52
9 1/2	3,908.94	9 1/2	4,271.86	9 1/2	4,624.50	9 1/2	4,957.85	9 1/2	5,281.41	9 1/2	5,605.19	9 1/2	5,915.40	9 1/2	6,240.87	9 1/2	6,537.27	9 1/2	6,808.08
9 3/4	3,916.51	9 3/4	4,279.40	9 3/4	4,631.66	9 3/4	4,964.59	9 3/4	5,286.53	9 3/4	5,610.32	9 3/4	5,920.51	9 3/4	6,248.00	9 3/4	6,544.80	9 3/4	6,815.60
10	3,924.07	10	4,286.93	10	4,638.81	10	4,971.34	10	5,291.66	10	5,615.61	10	5,929.59	10	6,255.58	10	6,551.78	10	6,823.20
10 1/4	3,931.63	10 1/4	4,294.44	10 1/4	4,645.93	10 1/4	4,978.05	10 1/4	5,306.77	10 1/4	5,626.73	10 1/4	5,936.71	10 1/4	6,263.79	10 1/4	6,559.98	10 1/4	6,830.80
10 1/2	3,939.19	10 1/2	4,301.95	10 1/2	4,653.06	10 1/2	4,984.77	10 1/2	5,311.88	10 1/2	5,631.86	10 1/2	5,941.84	10 1/2	6,270.91	10 1/2	6,567.10	10 1/2	6,838.32
10 3/4	3,946.75	10 3/4	4,309.45	10 3/4	4,660.18	10 3/4	4,991.48	10 3/4	5,316.99	10 3/4	5,636.97	10 3/4	5,946.95	10 3/4	6,278.02	10 3/4	6,574.21	10 3/4	6,845.84
11	3,954.31	11	4,316.96	11	4,667.31	11	4,998.19	11	5,322.10	11	5,642.06	11	5,952.04	11	6,285.11	11	6,580.30	11	6,853.44
11 1/4	3,961.88	11 1/4	4,324.43	11 1/4	4,674.40	11 1/4	5,005.20	11 1/4	5,327.21	11 1/4	5,647.13	11 1/4	5,957.07	11 1/4	6,292.12	11 1/4	6,587.41	11 1/4	6,861.00
11 1/2	3,969.44	11 1/2	4,331.90	11 1/2	4,681.50	11 1/2	5,012.20	11 1/2	5,332.31	11 1/2	5,652.24	11 1/2	5,962.18	11 1/2	6,300.13	11 1/2	6,594.52	11 1/2	6,868.60
11 3/4	3,977.00	11 3/4	4,339.38	11 3/4	4,688.59	11 3/4	5,019.20	11 3/4	5,337.41	11 3/4	5,657.35	11 3/4	5,967.29	11 3/4	6,307.14	11 3/4	6,601.63	11 3/4	6,876.16

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CALCULATED: 11/19/2018 CL
PRINTED: 11/20/2018

CANCELS AND SUPERCEDES
ALL PRIOR TO 11/2018

CERTIFIED CHART FOR THE ABOVE NAMED TANK ONLY.

PRECISION MEASUREMENT
& ANALYSIS, INC.
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Pearland, Texas 77589
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Paul J. Mac



BARGE "EMS 510"

1 STBD INNAGE TABLE

CAPACITIES GIVEN IN BARRELS OF 42 U.S. GALLONS

0 FT.		1 FT.		2 FT.		3 FT.		4 FT.		5 FT.		6 FT.		7 FT.		8 FT.		9 FT.	
IN	0 FT.	IN	1 FT.	IN	2 FT.	IN	3 FT.	IN	4 FT.	IN	5 FT.	IN	6 FT.	IN	7 FT.	IN	8 FT.	IN	9 FT.
0	21.44	0	386.21	0	718.50	0	1,080.88	0	1,443.22	0	1,806.79	0	2,170.35	0	2,533.91	0	2,897.17	0	3,260.60
1/4	25.69	1/4	363.64	1/4	726.08	1/4	1,088.41	1/4	1,450.80	1/4	1,814.36	1/4	2,177.92	1/4	2,541.48	1/4	2,904.74	1/4	3,268.17
1/2	29.93	1/2	371.07	1/2	733.65	1/2	1,095.93	1/2	1,458.37	1/2	1,821.93	1/2	2,185.50	1/2	2,549.06	1/2	2,912.31	1/2	3,275.74
3/4	34.18	3/4	378.49	3/4	741.23	3/4	1,103.45	3/4	1,465.95	3/4	1,829.51	3/4	2,193.07	3/4	2,556.63	3/4	2,919.88	3/4	3,283.31
1	38.43	1	385.92	1	748.80	1	1,110.97	1	1,473.52	1	1,837.08	1	2,200.64	1	2,564.21	1	2,927.45	1	3,290.88
1/4	43.93	1/4	393.34	1/4	756.37	1/4	1,118.50	1/4	1,481.10	1/4	1,844.66	1/4	2,215.79	1/4	2,579.35	1/4	2,935.03	1/4	3,298.45
1/2	49.44	1/2	400.77	1/2	763.95	1/2	1,126.02	1/2	1,488.67	1/2	1,852.23	1/2	2,225.79	1/2	2,590.35	1/2	2,946.03	1/2	3,306.02
3/4	54.95	3/4	408.20	3/4	771.52	3/4	1,133.54	3/4	1,496.24	3/4	1,859.81	3/4	2,233.37	3/4	2,598.93	3/4	2,950.17	3/4	3,313.60
2	60.45	2	415.62	2	779.10	2	1,141.06	2	1,503.82	2	1,867.38	2	2,239.94	2	2,594.50	2	2,957.74	2	3,321.17
1/4	67.22	1/4	423.18	1/4	786.67	1/4	1,148.59	1/4	1,511.39	1/4	1,874.95	1/4	2,246.09	1/4	2,602.08	1/4	2,965.31	1/4	3,328.74
1/2	73.99	1/2	430.73	1/2	794.24	1/2	1,156.11	1/2	1,518.97	1/2	1,882.53	1/2	2,253.66	1/2	2,609.65	1/2	2,972.88	1/2	3,336.31
3/4	80.76	3/4	438.29	3/4	801.82	3/4	1,163.63	3/4	1,526.54	3/4	1,890.10	3/4	2,261.24	3/4	2,617.23	3/4	2,980.45	3/4	3,343.88
3	87.53	3	445.84	3	809.39	3	1,171.15	3	1,534.12	3	1,897.68	3	2,268.81	3	2,624.80	3	2,988.03	3	3,351.45
1/4	95.01	1/4	453.42	1/4	816.96	1/4	1,178.67	1/4	1,541.69	1/4	1,905.25	1/4	2,276.39	1/4	2,632.37	1/4	2,995.60	1/4	3,359.02
1/2	102.49	1/2	460.99	1/2	824.54	1/2	1,186.20	1/2	1,549.26	1/2	1,912.83	1/2	2,283.96	1/2	2,639.94	1/2	3,003.17	1/2	3,366.60
3/4	109.97	3/4	468.57	3/4	832.11	3/4	1,193.72	3/4	1,556.84	3/4	1,920.40	3/4	2,291.54	3/4	2,647.51	3/4	3,010.74	3/4	3,374.17
4	117.45	4	476.14	4	839.69	4	1,201.24	4	1,564.44	4	1,927.97	4	2,299.11	4	2,655.08	4	3,018.31	4	3,381.74
1/4	125.01	1/4	483.71	1/4	847.26	1/4	1,208.76	1/4	1,571.99	1/4	1,935.55	1/4	2,306.68	1/4	2,662.64	1/4	3,025.88	1/4	3,389.31
1/2	132.57	1/2	491.29	1/2	854.83	1/2	1,216.29	1/2	1,579.56	1/2	1,943.12	1/2	2,314.26	1/2	2,670.20	1/2	3,033.45	1/2	3,396.88
3/4	140.13	3/4	498.86	3/4	862.41	3/4	1,223.81	3/4	1,587.13	3/4	1,950.70	3/4	2,321.83	3/4	2,677.76	3/4	3,041.03	3/4	3,404.45
5	147.69	5	506.43	5	869.98	5	1,231.33	5	1,594.71	5	1,958.27	5	2,329.44	5	2,685.32	5	3,048.60	5	3,412.02
1/4	155.25	1/4	514.01	1/4	877.56	1/4	1,238.86	1/4	1,602.28	1/4	1,965.84	1/4	2,337.01	1/4	2,692.88	1/4	3,056.17	1/4	3,419.60
1/2	162.81	1/2	521.58	1/2	885.13	1/2	1,246.40	1/2	1,609.86	1/2	1,973.42	1/2	2,344.55	1/2	2,700.44	1/2	3,063.74	1/2	3,427.17
3/4	170.37	3/4	529.16	3/4	892.70	3/4	1,253.93	3/4	1,617.43	3/4	1,980.99	3/4	2,352.13	3/4	2,708.00	3/4	3,071.31	3/4	3,434.74
6	177.93	6	536.73	6	900.28	6	1,261.46	6	1,625.01	6	1,988.57	6	2,359.70	6	2,715.56	6	3,078.88	6	3,442.31
1/4	185.37	1/4	544.30	1/4	907.82	1/4	1,269.03	1/4	1,632.58	1/4	1,996.14	1/4	2,367.28	1/4	2,723.12	1/4	3,086.45	1/4	3,449.88
1/2	192.81	1/2	551.88	1/2	915.36	1/2	1,276.60	1/2	1,640.15	1/2	2,003.72	1/2	2,374.85	1/2	2,730.68	1/2	3,094.03	1/2	3,457.45
3/4	200.25	3/4	559.45	3/4	922.89	3/4	1,284.17	3/4	1,647.73	3/4	2,011.29	3/4	2,382.43	3/4	2,738.24	3/4	3,101.60	3/4	3,465.02
7	207.70	7	567.03	7	930.43	7	1,291.74	7	1,655.30	7	2,018.86	7	2,390.00	7	2,745.80	7	3,109.17	7	3,472.60
1/4	215.12	1/4	574.60	1/4	937.96	1/4	1,299.32	1/4	1,662.88	1/4	2,026.44	1/4	2,405.15	1/4	2,753.36	1/4	3,116.74	1/4	3,480.17
1/2	222.55	1/2	582.17	1/2	945.48	1/2	1,306.89	1/2	1,670.45	1/2	2,034.01	1/2	2,412.72	1/2	2,760.91	1/2	3,124.31	1/2	3,487.74
3/4	229.97	3/4	589.75	3/4	953.00	3/4	1,314.46	3/4	1,678.03	3/4	2,041.59	3/4	2,420.30	3/4	2,768.47	3/4	3,131.88	3/4	3,495.31
8	237.40	8	597.32	8	960.53	8	1,322.04	8	1,685.60	8	2,049.16	8	2,427.87	8	2,776.03	8	3,139.45	8	3,502.88
1/4	244.83	1/4	604.90	1/4	968.05	1/4	1,329.61	1/4	1,693.17	1/4	2,056.74	1/4	2,435.45	1/4	2,783.60	1/4	3,147.03	1/4	3,510.45
1/2	252.25	1/2	612.47	1/2	975.57	1/2	1,337.19	1/2	1,700.75	1/2	2,064.31	1/2	2,443.02	1/2	2,791.17	1/2	3,154.60	1/2	3,518.02
3/4	259.68	3/4	620.04	3/4	983.09	3/4	1,344.76	3/4	1,708.32	3/4	2,071.88	3/4	2,450.59	3/4	2,798.74	3/4	3,162.17	3/4	3,525.60
9	267.10	9	627.62	9	990.62	9	1,352.33	9	1,715.90	9	2,079.46	9	2,458.17	9	2,806.31	9	3,169.74	9	3,533.17
1/4	274.53	1/4	635.19	1/4	998.14	1/4	1,359.91	1/4	1,723.47	1/4	2,087.03	1/4	2,465.74	1/4	2,813.88	1/4	3,177.31	1/4	3,540.74
1/2	281.96	1/2	642.77	1/2	1,005.66	1/2	1,367.48	1/2	1,731.04	1/2	2,094.61	1/2	2,473.32	1/2	2,821.45	1/2	3,184.88	1/2	3,548.31
3/4	289.38	3/4	650.34	3/4	1,013.18	3/4	1,375.06	3/4	1,738.62	3/4	2,102.18	3/4	2,480.89	3/4	2,829.03	3/4	3,192.45	3/4	3,555.88
10	296.81	10	657.91	10	1,020.71	10	1,382.63	10	1,746.19	10	2,109.75	10	2,488.46	10	2,836.60	10	3,200.02	10	3,563.45
1/4	304.23	1/4	665.49	1/4	1,028.23	1/4	1,390.21	1/4	1,753.77	1/4	2,117.33	1/4	2,496.04	1/4	2,844.17	1/4	3,207.60	1/4	3,571.02
1/2	311.66	1/2	673.06	1/2	1,035.75	1/2	1,397.78	1/2	1,761.34	1/2	2,124.88	1/2	2,503.61	1/2	2,851.74	1/2	3,215.17	1/2	3,578.59
3/4	319.09	3/4	680.63	3/4	1,043.27	3/4	1,405.35	3/4	1,768.92	3/4	2,132.48	3/4	2,511.19	3/4	2,859.31	3/4	3,222.74	3/4	3,586.17
11	326.51	11	688.21	11	1,050.80	11	1,412.93	11	1,776.49	11	2,140.05	11	2,518.76	11	2,866.88	11	3,230.31	11	3,593.74
1/4	333.94	1/4	695.78	1/4	1,058.32	1/4	1,420.50	1/4	1,784.06	1/4	2,147.63	1/4	2,526.34	1/4	2,874.45	1/4	3,237.88	1/4	3,601.31
1/2	341.36	1/2	703.36	1/2	1,065.84	1/2	1,428.08	1/2	1,791.64	1/2	2,155.20	1/2	2,534.02	1/2	2,882.03	1/2	3,245.45	1/2	3,608.88
3/4	348.79	3/4	710.93	3/4	1,073.36	3/4	1,435.65	3/4	1,799.21	3/4	2,162.77	3/4	2,541.76	3/4	2,889.60	3/4	3,253.02	3/4	3,616.45

CERTIFIED CHART FOR THE ABOVE NAMED TANK ONLY.

BARGE STRAPPED AND COMPUTED IN ACCORDANCE WITH MPMS CHAPTER 2.7.

CAPACITY TABLE ONLY APPLIES WHEN BARGE IS ON EVEN KEEL.

CAPACITY TABLE EXTENDS TO EXTREME HEIGHT OF TANK.

CAPACITY TABLE ONLY APPLIES TO INNAGE GAUGES TAKEN TO TOP LIP OF 2" HERMETIC VALVE.

GAUGE POINT: (HERMETIC) LOCATED 10'-06" OFF CENTERLINE AND 55'-03" FORWARD OF AFT BULKHEAD.

PRECISION MEASUREMENT

& ANALYSIS, INC.

P.O. Box 2092

Pearland, Texas 77588

<http://www.pmacorp.net>



BARGE "EMS 510"

1 STBD INNAGE TABLE

CAPACITIES GIVEN IN BARRELS OF 42 U.S. GALLONS

10 FT.		11 FT.		12 FT.		13 FT.		14 FT.		15 FT.		16 FT.		17 FT.		18 FT.		19 FT.	
IN	0	IN	0	IN	0	IN	0	IN	0	IN	0	IN	0	IN	0	IN	0	IN	0
0	3,624.02	0	3,987.45	0	4,350.18	0	4,699.45	0	5,030.37	0	5,343.79	0	5,648.47	0	5,944.14	0	6,230.51	0	6,507.38
1/4	3,631.59	1/4	3,995.02	1/4	4,357.63	1/4	4,706.52	1/4	5,037.79	1/4	5,343.79	1/4	5,648.47	1/4	5,944.14	1/4	6,230.51	1/4	6,507.38
1/2	3,639.17	1/2	4,002.59	1/2	4,365.08	1/2	4,713.59	1/2	5,045.21	1/2	5,343.79	1/2	5,648.47	1/2	5,944.14	1/2	6,230.51	1/2	6,507.38
3/4	3,646.74	3/4	4,010.16	3/4	4,372.53	3/4	4,720.66	3/4	5,052.63	3/4	5,343.79	3/4	5,648.47	3/4	5,944.14	3/4	6,230.51	3/4	6,507.38
1	3,654.31	1	4,017.74	1	4,379.98	1	4,727.73	1	5,060.05	1	5,343.79	1	5,648.47	1	5,944.14	1	6,230.51	1	6,507.38
1/4	3,661.88	1/4	4,025.31	1/4	4,387.40	1/4	4,734.74	1/4	5,067.52	1/4	5,343.79	1/4	5,648.47	1/4	5,944.14	1/4	6,230.51	1/4	6,507.38
1/2	3,669.45	1/2	4,032.88	1/2	4,394.82	1/2	4,741.75	1/2	5,074.99	1/2	5,343.79	1/2	5,648.47	1/2	5,944.14	1/2	6,230.51	1/2	6,507.38
3/4	3,677.02	3/4	4,040.45	3/4	4,402.24	3/4	4,748.76	3/4	5,082.47	3/4	5,343.79	3/4	5,648.47	3/4	5,944.14	3/4	6,230.51	3/4	6,507.38
2	3,684.59	2	4,048.02	2	4,409.86	2	4,755.77	2	5,089.94	2	5,343.79	2	5,648.47	2	5,944.14	2	6,230.51	2	6,507.38
1/4	3,692.17	1/4	4,055.59	1/4	4,417.05	1/4	4,762.74	1/4	5,097.41	1/4	5,343.79	1/4	5,648.47	1/4	5,944.14	1/4	6,230.51	1/4	6,507.38
1/2	3,699.74	1/2	4,063.16	1/2	4,424.44	1/2	4,769.72	1/2	5,104.89	1/2	5,343.79	1/2	5,648.47	1/2	5,944.14	1/2	6,230.51	1/2	6,507.38
3/4	3,707.31	3/4	4,070.74	3/4	4,431.83	3/4	4,776.69	3/4	5,112.36	3/4	5,343.79	3/4	5,648.47	3/4	5,944.14	3/4	6,230.51	3/4	6,507.38
3	3,714.88	3	4,078.31	3	4,439.22	3	4,783.67	3	5,119.83	3	5,343.79	3	5,648.47	3	5,944.14	3	6,230.51	3	6,507.38
1/4	3,722.45	1/4	4,085.88	1/4	4,446.58	1/4	4,790.62	1/4	5,127.30	1/4	5,343.79	1/4	5,648.47	1/4	5,944.14	1/4	6,230.51	1/4	6,507.38
1/2	3,730.02	1/2	4,093.45	1/2	4,453.94	1/2	4,797.56	1/2	5,134.78	1/2	5,343.79	1/2	5,648.47	1/2	5,944.14	1/2	6,230.51	1/2	6,507.38
3/4	3,737.59	3/4	4,101.02	3/4	4,461.29	3/4	4,804.51	3/4	5,142.25	3/4	5,343.79	3/4	5,648.47	3/4	5,944.14	3/4	6,230.51	3/4	6,507.38
4	3,745.17	4	4,108.59	4	4,468.65	4	4,811.45	4	5,149.72	4	5,343.79	4	5,648.47	4	5,944.14	4	6,230.51	4	6,507.38
1/4	3,752.74	1/4	4,116.16	1/4	4,475.97	1/4	4,818.37	1/4	5,157.20	1/4	5,343.79	1/4	5,648.47	1/4	5,944.14	1/4	6,230.51	1/4	6,507.38
1/2	3,760.31	1/2	4,123.74	1/2	4,483.30	1/2	4,825.28	1/2	5,164.67	1/2	5,343.79	1/2	5,648.47	1/2	5,944.14	1/2	6,230.51	1/2	6,507.38
3/4	3,767.88	3/4	4,131.31	3/4	4,490.82	3/4	4,832.19	3/4	5,172.14	3/4	5,343.79	3/4	5,648.47	3/4	5,944.14	3/4	6,230.51	3/4	6,507.38
5	3,775.45	5	4,138.88	5	4,497.94	5	4,839.10	5	5,179.62	5	5,343.79	5	5,648.47	5	5,944.14	5	6,230.51	5	6,507.38
1/4	3,783.02	1/4	4,146.45	1/4	4,505.23	1/4	4,845.98	1/4	5,186.95	1/4	5,343.79	1/4	5,648.47	1/4	5,944.14	1/4	6,230.51	1/4	6,507.38
1/2	3,790.59	1/2	4,154.02	1/2	4,512.53	1/2	4,852.86	1/2	5,194.28	1/2	5,343.79	1/2	5,648.47	1/2	5,944.14	1/2	6,230.51	1/2	6,507.38
3/4	3,798.17	3/4	4,161.59	3/4	4,519.82	3/4	4,859.74	3/4	5,201.61	3/4	5,343.79	3/4	5,648.47	3/4	5,944.14	3/4	6,230.51	3/4	6,507.38
6	3,805.74	6	4,169.16	6	4,527.11	6	4,866.61	6	5,208.95	6	5,343.79	6	5,648.47	6	5,944.14	6	6,230.51	6	6,507.38
1/4	3,813.31	1/4	4,176.74	1/4	4,534.37	1/4	4,873.46	1/4	5,215.30	1/4	5,343.79	1/4	5,648.47	1/4	5,944.14	1/4	6,230.51	1/4	6,507.38
1/2	3,820.88	1/2	4,184.31	1/2	4,541.63	1/2	4,880.31	1/2	5,221.64	1/2	5,343.79	1/2	5,648.47	1/2	5,944.14	1/2	6,230.51	1/2	6,507.38
3/4	3,828.45	3/4	4,191.88	3/4	4,548.90	3/4	4,887.16	3/4	5,227.99	3/4	5,343.79	3/4	5,648.47	3/4	5,944.14	3/4	6,230.51	3/4	6,507.38
7	3,836.02	7	4,199.45	7	4,556.16	7	4,894.00	7	5,234.34	7	5,343.79	7	5,648.47	7	5,944.14	7	6,230.51	7	6,507.38
1/4	3,843.59	1/4	4,207.02	1/4	4,563.39	1/4	4,900.82	1/4	5,239.47	1/4	5,343.79	1/4	5,648.47	1/4	5,944.14	1/4	6,230.51	1/4	6,507.38
1/2	3,851.17	1/2	4,214.59	1/2	4,570.61	1/2	4,907.64	1/2	5,244.60	1/2	5,343.79	1/2	5,648.47	1/2	5,944.14	1/2	6,230.51	1/2	6,507.38
3/4	3,858.74	3/4	4,222.16	3/4	4,577.84	3/4	4,914.45	3/4	5,249.73	3/4	5,343.79	3/4	5,648.47	3/4	5,944.14	3/4	6,230.51	3/4	6,507.38
8	3,866.31	8	4,229.74	8	4,585.07	8	4,921.27	8	5,254.86	8	5,343.79	8	5,648.47	8	5,944.14	8	6,230.51	8	6,507.38
1/4	3,873.88	1/4	4,237.30	1/4	4,592.27	1/4	4,928.06	1/4	5,259.99	1/4	5,343.79	1/4	5,648.47	1/4	5,944.14	1/4	6,230.51	1/4	6,507.38
1/2	3,881.45	1/2	4,244.87	1/2	4,599.46	1/2	4,934.85	1/2	5,265.12	1/2	5,343.79	1/2	5,648.47	1/2	5,944.14	1/2	6,230.51	1/2	6,507.38
3/4	3,889.02	3/4	4,252.43	3/4	4,606.65	3/4	4,941.63	3/4	5,270.25	3/4	5,343.79	3/4	5,648.47	3/4	5,944.14	3/4	6,230.51	3/4	6,507.38
9	3,896.59	9	4,260.00	9	4,613.85	9	4,948.42	9	5,275.38	9	5,343.79	9	5,648.47	9	5,944.14	9	6,230.51	9	6,507.38
1/4	3,904.17	1/4	4,267.55	1/4	4,621.01	1/4	4,955.17	1/4	5,280.51	1/4	5,343.79	1/4	5,648.47	1/4	5,944.14	1/4	6,230.51	1/4	6,507.38
1/2	3,911.74	1/2	4,275.09	1/2	4,628.18	1/2	4,961.93	1/2	5,285.64	1/2	5,343.79	1/2	5,648.47	1/2	5,944.14	1/2	6,230.51	1/2	6,507.38
3/4	3,919.31	3/4	4,282.64	3/4	4,635.34	3/4	4,968.69	3/4	5,290.77	3/4	5,343.79	3/4	5,648.47	3/4	5,944.14	3/4	6,230.51	3/4	6,507.38
10	3,926.88	10	4,290.19	10	4,642.50	10	4,975.44	10	5,295.90	10	5,343.79	10	5,648.47	10	5,944.14	10	6,230.51	10	6,507.38
1/4	3,934.45	1/4	4,297.71	1/4	4,649.64	1/4	4,982.16	1/4	5,301.03	1/4	5,343.79	1/4	5,648.47	1/4	5,944.14	1/4	6,230.51	1/4	6,507.38
1/2	3,942.02	1/2	4,305.22	1/2	4,656.77	1/2	4,988.88	1/2	5,306.16	1/2	5,343.79	1/2	5,648.47	1/2	5,944.14	1/2	6,230.51	1/2	6,507.38
3/4	3,949.59	3/4	4,312.74	3/4	4,663.90	3/4	4,995.61	3/4	5,311.29	3/4	5,343.79	3/4	5,648.47	3/4	5,944.14	3/4	6,230.51	3/4	6,507.38
11	3,957.16	11	4,320.25	11	4,671.04	11	5,002.33	11	5,316.42	11	5,343.79	11	5,648.47	11	5,944.14	11	6,230.51	11	6,507.38
1/4	3,964.74	1/4	4,327.73	1/4	4,678.14	1/4	5,009.34	1/4	5,321.55	1/4	5,343.79	1/4	5,648.47	1/4	5,944.14	1/4	6,230.51	1/4	6,507.38
1/2	3,972.31	1/2	4,335.22	1/2	4,685.24	1/2	5,016.35	1/2	5,326.68	1/2	5,343.79	1/2	5,648.47	1/2	5,944.14	1/2	6,230.51	1/2	6,507.38
3/4	3,979.88	3/4	4,342.70	3/4	4,692.35	3/4	5,023.36	3/4	5,331.81	3/4	5,343.79	3/4	5,648.47	3/4	5,944.14	3/4	6,230.51	3/4	6,507.38

CERTIFIED CHART FOR THE ABOVE NAMED TANK ONLY.

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Paul J. Mac



BARGE "EMS 510"

2 PORT INNAGE TABLE

CAPACITIES GIVEN IN BARRELS OF 42 U.S. GALLONS

0 FT.		1 FT.		2 FT.		3 FT.		4 FT.		5 FT.		6 FT.		7 FT.		8 FT.		9 FT.	
IN	0 FT.	IN	1 FT.	IN	2 FT.	IN	3 FT.	IN	4 FT.	IN	5 FT.	IN	6 FT.	IN	7 FT.	IN	8 FT.	IN	9 FT.
0	21.33	0	354.31	0	714.67	0	1,076.05	0	1,437.42	0	1,799.05	0	2,160.68	0	2,522.31	0	2,883.84	0	3,245.33
1/4	25.55	1/4	361.70	1/4	722.20	1/4	1,083.57	1/4	1,444.96	1/4	1,806.59	1/4	2,168.21	1/4	2,529.84	1/4	2,891.37	1/4	3,252.87
1/2	29.78	1/2	369.08	1/2	729.74	1/2	1,091.09	1/2	1,452.49	1/2	1,814.12	1/2	2,175.75	1/2	2,537.37	1/2	2,898.90	1/2	3,260.40
3/4	34.00	3/4	376.47	3/4	737.27	3/4	1,098.61	3/4	1,460.03	3/4	1,821.65	3/4	2,183.28	3/4	2,544.91	3/4	2,906.43	3/4	3,269.93
1	38.22	1	383.85	1	744.80	1	1,106.14	1	1,467.56	1	1,829.19	1	2,190.81	1	2,552.44	1	2,913.96	1	3,275.46
1/4	43.70	1/4	391.24	1/4	752.34	1/4	1,113.66	1/4	1,475.09	1/4	1,836.72	1/4	2,198.35	1/4	2,559.98	1/4	2,921.49	1/4	3,282.99
1/2	49.18	1/2	398.63	1/2	759.87	1/2	1,121.18	1/2	1,482.63	1/2	1,844.26	1/2	2,205.88	1/2	2,567.51	1/2	2,929.02	1/2	3,290.52
3/4	54.66	3/4	406.01	3/4	767.40	3/4	1,128.70	3/4	1,490.16	3/4	1,851.79	3/4	2,213.42	3/4	2,575.04	3/4	2,936.56	3/4	3,298.05
2	60.13	2	413.40	2	774.94	2	1,136.22	2	1,497.70	2	1,859.32	2	2,220.95	2	2,582.58	2	2,944.09	2	3,305.58
1/4	66.87	1/4	420.91	1/4	782.47	1/4	1,143.75	1/4	1,505.23	1/4	1,866.86	1/4	2,228.48	1/4	2,590.11	1/4	2,951.62	1/4	3,313.12
1/2	73.60	1/2	428.43	1/2	790.01	1/2	1,151.27	1/2	1,512.76	1/2	1,874.39	1/2	2,236.02	1/2	2,597.65	1/2	2,959.15	1/2	3,320.65
3/4	80.33	3/4	435.94	3/4	797.54	3/4	1,158.79	3/4	1,520.30	3/4	1,881.92	3/4	2,243.55	3/4	2,605.18	3/4	2,966.68	3/4	3,328.18
3	87.07	3	443.46	3	805.07	3	1,166.31	3	1,527.83	3	1,889.46	3	2,251.09	3	2,612.71	3	2,974.21	3	3,335.71
1/4	94.51	1/4	450.99	1/4	812.61	1/4	1,173.83	1/4	1,535.37	1/4	1,896.99	1/4	2,258.62	1/4	2,620.24	1/4	2,981.74	1/4	3,343.24
1/2	101.95	1/2	458.53	1/2	820.14	1/2	1,181.35	1/2	1,542.90	1/2	1,904.53	1/2	2,266.15	1/2	2,627.78	1/2	2,989.27	1/2	3,350.77
3/4	109.39	3/4	466.06	3/4	827.67	3/4	1,188.88	3/4	1,550.43	3/4	1,912.06	3/4	2,273.69	3/4	2,635.31	3/4	2,996.81	3/4	3,358.30
4	116.83	4	473.59	4	835.21	4	1,196.40	4	1,557.97	4	1,919.59	4	2,281.22	4	2,642.84	4	3,004.34	4	3,365.83
1/4	124.35	1/4	481.13	1/4	842.74	1/4	1,203.92	1/4	1,565.50	1/4	1,927.13	1/4	2,288.76	1/4	2,650.37	1/4	3,011.87	1/4	3,373.37
1/2	131.87	1/2	488.66	1/2	850.27	1/2	1,211.44	1/2	1,573.03	1/2	1,934.66	1/2	2,296.29	1/2	2,657.90	1/2	3,019.40	1/2	3,380.90
3/4	139.39	3/4	496.19	3/4	857.81	3/4	1,218.96	3/4	1,580.57	3/4	1,942.20	3/4	2,303.82	3/4	2,665.43	3/4	3,026.93	3/4	3,388.43
5	146.91	5	503.73	5	865.34	5	1,226.48	5	1,588.10	5	1,949.73	5	2,311.36	5	2,672.96	5	3,034.46	5	3,395.96
1/4	154.42	1/4	511.26	1/4	872.87	1/4	1,234.02	1/4	1,595.64	1/4	1,957.26	1/4	2,318.89	1/4	2,680.49	1/4	3,041.99	1/4	3,403.49
1/2	161.94	1/2	518.80	1/2	880.41	1/2	1,241.55	1/2	1,603.17	1/2	1,964.80	1/2	2,326.42	1/2	2,688.03	1/2	3,049.52	1/2	3,411.02
3/4	169.46	3/4	526.33	3/4	887.94	3/4	1,249.08	3/4	1,610.70	3/4	1,972.33	3/4	2,333.96	3/4	2,695.56	3/4	3,057.05	3/4	3,418.55
6	176.98	6	533.86	6	895.48	6	1,256.61	6	1,618.24	6	1,979.87	6	2,341.49	6	2,703.09	6	3,064.59	6	3,426.08
1/4	184.38	1/4	541.40	1/4	903.01	1/4	1,264.14	1/4	1,625.77	1/4	1,987.40	1/4	2,349.03	1/4	2,710.62	1/4	3,072.12	1/4	3,433.61
1/2	191.79	1/2	548.93	1/2	910.54	1/2	1,271.68	1/2	1,633.31	1/2	1,994.93	1/2	2,356.56	1/2	2,718.15	1/2	3,079.65	1/2	3,441.15
3/4	199.19	3/4	556.46	3/4	918.08	3/4	1,279.21	3/4	1,640.84	3/4	2,002.47	3/4	2,364.09	3/4	2,725.68	3/4	3,087.18	3/4	3,448.68
7	206.59	7	564.00	7	925.61	7	1,286.75	7	1,648.37	7	2,010.00	7	2,371.63	7	2,733.21	7	3,094.71	7	3,456.21
1/4	213.98	1/4	571.53	1/4	933.13	1/4	1,294.28	1/4	1,655.91	1/4	2,017.53	1/4	2,379.16	1/4	2,740.74	1/4	3,102.24	1/4	3,463.74
1/2	221.36	1/2	579.06	1/2	940.66	1/2	1,301.81	1/2	1,663.44	1/2	2,025.07	1/2	2,386.70	1/2	2,748.28	1/2	3,109.77	1/2	3,471.27
3/4	228.75	3/4	586.60	3/4	948.18	3/4	1,309.35	3/4	1,670.98	3/4	2,032.60	3/4	2,394.23	3/4	2,755.81	3/4	3,117.30	3/4	3,478.80
8	236.13	8	594.13	8	955.70	8	1,316.88	8	1,678.51	8	2,040.14	8	2,401.76	8	2,763.34	8	3,124.84	8	3,486.33
1/4	243.52	1/4	601.67	1/4	963.22	1/4	1,324.42	1/4	1,686.04	1/4	2,047.67	1/4	2,409.30	1/4	2,770.87	1/4	3,132.37	1/4	3,493.86
1/2	250.91	1/2	609.20	1/2	970.75	1/2	1,331.95	1/2	1,693.58	1/2	2,055.20	1/2	2,416.83	1/2	2,778.40	1/2	3,139.90	1/2	3,501.40
3/4	258.29	3/4	616.73	3/4	978.27	3/4	1,339.48	3/4	1,701.11	3/4	2,062.74	3/4	2,424.37	3/4	2,785.93	3/4	3,147.43	3/4	3,508.93
9	265.68	9	624.27	9	985.79	9	1,347.02	9	1,708.64	9	2,070.27	9	2,431.90	9	2,793.46	9	3,154.96	9	3,516.46
1/4	273.06	1/4	631.80	1/4	993.31	1/4	1,354.55	1/4	1,716.18	1/4	2,077.81	1/4	2,439.43	1/4	2,800.99	1/4	3,162.49	1/4	3,523.99
1/2	280.45	1/2	639.33	1/2	1,000.83	1/2	1,362.09	1/2	1,723.71	1/2	2,085.34	1/2	2,446.97	1/2	2,808.53	1/2	3,170.02	1/2	3,531.52
3/4	287.84	3/4	646.87	3/4	1,008.35	3/4	1,369.62	3/4	1,731.25	3/4	2,092.87	3/4	2,454.50	3/4	2,816.06	3/4	3,177.55	3/4	3,539.05
10	295.22	10	654.40	10	1,015.88	10	1,377.15	10	1,738.78	10	2,100.41	10	2,462.03	10	2,823.59	10	3,185.09	10	3,546.58
1/4	302.61	1/4	661.93	1/4	1,023.40	1/4	1,384.69	1/4	1,746.31	1/4	2,107.94	1/4	2,469.57	1/4	2,831.12	1/4	3,192.62	1/4	3,554.11
1/2	309.99	1/2	669.47	1/2	1,030.92	1/2	1,392.22	1/2	1,753.85	1/2	2,115.48	1/2	2,477.10	1/2	2,838.65	1/2	3,200.15	1/2	3,561.65
3/4	317.38	3/4	677.00	3/4	1,038.44	3/4	1,399.76	3/4	1,761.38	3/4	2,123.01	3/4	2,484.64	3/4	2,846.18	3/4	3,207.68	3/4	3,569.18
11	324.77	11	684.53	11	1,045.96	11	1,407.29	11	1,768.92	11	2,130.54	11	2,492.17	11	2,853.71	11	3,215.21	11	3,576.71
1/4	332.15	1/4	692.07	1/4	1,053.48	1/4	1,414.82	1/4	1,776.45	1/4	2,138.08	1/4	2,499.70	1/4	2,861.24	1/4	3,222.74	1/4	3,584.24
1/2	339.54	1/2	699.60	1/2	1,061.01	1/2	1,422.36	1/2	1,783.98	1/2	2,145.61	1/2	2,507.24	1/2	2,868.77	1/2	3,230.27	1/2	3,591.77
3/4	346.92	3/4	707.14	3/4	1,068.53	3/4	1,429.89	3/4	1,791.52	3/4	2,153.14	3/4	2,514.77	3/4	2,876.31	3/4	3,237.80	3/4	3,599.30

BARGE STRAPPED AND COMPUTED IN ACCORDANCE WITH MPMS CHAPTER 2.7.

CAPACITY TABLE ONLY APPLIES WHEN BARGE IS ON EVEN KEEL.

CAPACITY TABLE ONLY APPLIES TO EXTERIOR HEIGHT OF TANK.

GAUGE POINT: (HERMETIC) LOCATED 10'-08" OFF CENTERLINE AND 42'-03" FORWARD OF AFT BULKHEAD.

CERTIFIED CHART FOR THE ABOVE NAMED TANK ONLY.

PRECISION MEASUREMENT

& ANALYSIS, INC.

P.O. Box 2092

Pearland, Texas 77588

<http://www.pmacorp.net>



BARGE "EMS 510"

2 PORT INNAGE TABLE

CAPACITIES GIVEN IN BARRELS OF 42 U.S. GALLONS

10 FT.		11 FT.		12 FT.		13 FT.		14 FT.		15 FT.		16 FT.		17 FT.		18 FT.		19 FT.	
IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT
0	3,606.83	0	3,988.33	0	4,329.12	0	4,676.53	0	5,005.69	0		0		0		0		0	
1/4	3,614.36	1/4	3,975.86	1/4	4,336.53	1/4	4,683.56	1/4	5,013.07	1/4		1/4		1/4		1/4		1/4	
1/2	3,621.89	1/2	3,983.39	1/2	4,343.94	1/2	4,690.60	1/2	5,020.45	1/2		1/2		1/2		1/2		1/2	
3/4	3,629.43	3/4	3,990.92	3/4	4,351.35	3/4	4,697.63	3/4	5,027.83	3/4		3/4		3/4		3/4		3/4	
1	3,636.96	1	3,998.45	1	4,358.76	1	4,704.66	1	5,035.21	1		1		1		1		1	
1/4	3,644.49	1/4	4,005.99	1/4	4,366.14	1/4	4,711.63	1/4	5,042.64	1/4		1/4		1/4		1/4		1/4	
1/2	3,652.02	1/2	4,013.52	1/2	4,373.52	1/2	4,718.60	1/2	5,050.07	1/2		1/2		1/2		1/2		1/2	
3/4	3,659.55	3/4	4,021.05	3/4	4,380.90	3/4	4,725.58	3/4	5,057.51	3/4		3/4		3/4		3/4		3/4	
2	3,667.08	2	4,028.58	2	4,388.29	2	4,732.55	2	5,064.94	2		2		2		2		2	
1/4	3,674.61	1/4	4,036.11	1/4	4,395.64	1/4	4,739.49	1/4	5,072.37	1/4		1/4		1/4		1/4		1/4	
1/2	3,682.14	1/2	4,043.64	1/2	4,402.99	1/2	4,746.43	1/2	5,079.80	1/2		1/2		1/2		1/2		1/2	
3/4	3,689.68	3/4	4,051.17	3/4	4,410.34	3/4	4,753.37	3/4	5,087.24	3/4		3/4		3/4		3/4		3/4	
3	3,697.21	3	4,058.70	3	4,417.69	3	4,760.30	3	5,094.67	3		3		3		3		3	
1/4	3,704.74	1/4	4,066.24	1/4	4,425.01	1/4	4,767.21	1/4	5,102.10	1/4		1/4		1/4		1/4		1/4	
1/2	3,712.27	1/2	4,073.77	1/2	4,432.33	1/2	4,774.12	1/2	5,109.54	1/2		1/2		1/2		1/2		1/2	
3/4	3,719.80	3/4	4,081.30	3/4	4,439.64	3/4	4,781.03	3/4	5,116.97	3/4		3/4		3/4		3/4		3/4	
4	3,727.33	4	4,088.83	4	4,446.96	4	4,787.94	4	5,124.40	4		4		4		4		4	
1/4	3,734.86	1/4	4,096.36	1/4	4,454.24	1/4	4,794.81	1/4	5,131.83	1/4		1/4		1/4		1/4		1/4	
1/2	3,742.39	1/2	4,103.89	1/2	4,461.53	1/2	4,801.69	1/2	5,139.27	1/2		1/2		1/2		1/2		1/2	
3/4	3,749.93	3/4	4,111.42	3/4	4,468.81	3/4	4,808.56	3/4	5,146.70	3/4		3/4		3/4		3/4		3/4	
5	3,757.46	5	4,118.95	5	4,476.10	5	4,815.44	5	5,154.13	5		5		5		5		5	
1/4	3,764.99	1/4	4,126.49	1/4	4,483.35	1/4	4,822.28	1/4	5,161.43	1/4		1/4		1/4		1/4		1/4	
1/2	3,772.52	1/2	4,134.02	1/2	4,490.60	1/2	4,829.12	1/2	5,168.73	1/2		1/2		1/2		1/2		1/2	
3/4	3,780.05	3/4	4,141.55	3/4	4,497.85	3/4	4,835.96	3/4	5,176.02	3/4		3/4		3/4		3/4		3/4	
6	3,787.58	6	4,149.08	6	4,505.11	6	4,842.81	6	5,183.32	6		6		6		6		6	
1/4	3,795.11	1/4	4,156.61	1/4	4,512.33	1/4	4,849.62	1/4	5,189.63	1/4		1/4		1/4		1/4		1/4	
1/2	3,802.64	1/2	4,164.14	1/2	4,519.55	1/2	4,856.43	1/2	5,195.95	1/2		1/2		1/2		1/2		1/2	
3/4	3,810.17	3/4	4,171.67	3/4	4,526.78	3/4	4,863.24	3/4	5,202.26	3/4		3/4		3/4		3/4		3/4	
7	3,817.71	7	4,179.20	7	4,534.00	7	4,870.05	7	5,208.58	7		7		7		7		7	
1/4	3,825.24	1/4	4,186.73	1/4	4,541.19	1/4	4,876.83	1/4	5,213.68	1/4		1/4		1/4		1/4		1/4	
1/2	3,832.77	1/2	4,194.27	1/2	4,548.38	1/2	4,883.61	1/2	5,218.78	1/2		1/2		1/2		1/2		1/2	
3/4	3,840.30	3/4	4,201.80	3/4	4,555.57	3/4	4,890.39	3/4	5,223.88	3/4		3/4		3/4		3/4		3/4	
8	3,847.83	8	4,209.33	8	4,562.76	8	4,897.17	8	5,228.99	8		8		8		8		8	
1/4	3,855.36	1/4	4,216.85	1/4	4,569.92	1/4	4,903.92	1/4	5,234.09	1/4		1/4		1/4		1/4		1/4	
1/2	3,862.89	1/2	4,224.37	1/2	4,577.07	1/2	4,910.67	1/2	5,239.19	1/2		1/2		1/2		1/2		1/2	
3/4	3,870.42	3/4	4,231.90	3/4	4,584.23	3/4	4,917.42	3/4	5,244.29	3/4		3/4		3/4		3/4		3/4	
9	3,877.96	9	4,239.42	9	4,591.39	9	4,924.17	9	5,249.39	9		9		9		9		9	
1/4	3,885.49	1/4	4,246.93	1/4	4,598.51	1/4	4,930.89	1/4	5,254.49	1/4		1/4		1/4		1/4		1/4	
1/2	3,893.02	1/2	4,254.43	1/2	4,605.64	1/2	4,937.61	1/2	5,259.59	1/2		1/2		1/2		1/2		1/2	
3/4	3,900.55	3/4	4,261.94	3/4	4,612.76	3/4	4,944.33	3/4	5,264.69	3/4		3/4		3/4		3/4		3/4	
10	3,908.08	10	4,269.45	10	4,619.89	10	4,951.05	10	5,269.79	10		10		10		10		10	
1/4	3,915.61	1/4	4,276.92	1/4	4,626.98	1/4	4,957.74	1/4	5,274.89	1/4		1/4		1/4		1/4		1/4	
1/2	3,923.14	1/2	4,284.40	1/2	4,634.08	1/2	4,964.42	1/2	5,279.99	1/2		1/2		1/2		1/2		1/2	
3/4	3,930.67	3/4	4,291.88	3/4	4,641.17	3/4	4,971.11	3/4	5,285.09	3/4		3/4		3/4		3/4		3/4	
11	3,938.21	11	4,299.35	11	4,648.27	11	4,977.80	11	5,290.19	11		11		11		11		11	
1/4	3,945.74	1/4	4,306.79	1/4	4,655.33	1/4	4,984.77	1/4	5,295.29	1/4		1/4		1/4		1/4		1/4	
1/2	3,953.27	1/2	4,314.23	1/2	4,662.40	1/2	4,991.74	1/2	5,300.39	1/2		1/2		1/2		1/2		1/2	
3/4	3,960.80	3/4	4,321.68	3/4	4,669.47	3/4	4,998.71	3/4	5,305.49	3/4		3/4		3/4		3/4		3/4	

STRAPPED: 11/16/2018 SW
CALCULATED: 11/19/2018 CL
PRINTED: 11/20/2018

CANCELS AND SUPERCEDES
ALL PRIOR TO 11/2018

CERTIFIED CHART FOR THE ABOVE NAMED TANK ONLY.

PRECISION MEASUREMENT
& ANALYSIS, INC.
P.O. Box 2092
Pearland, Texas 77588
<http://www.pmacorp.net>

Paul Jones



BARGE "EMS 510"

2 STBD INNAGE TABLE

CAPACITIES GIVEN IN BARRELS OF 42 U.S. GALLONS

0 FT.		1 FT.		2 FT.		3 FT.		4 FT.		5 FT.		6 FT.		7 FT.		8 FT.		9 FT.	
IN	0 FT.	IN	1 FT.	IN	2 FT.	IN	3 FT.	IN	4 FT.	IN	5 FT.	IN	6 FT.	IN	7 FT.	IN	8 FT.	IN	9 FT.
0	21.35	0	354.71	0	715.48	0	1,089.48	0	1,423.15	0	1,785.18	0	2,147.22	0	2,509.25	0	2,869.48	0	3,231.38
1/4	25.58	1/4	362.11	1/4	723.02	1/4	1,076.68	1/4	1,430.69	1/4	1,792.72	1/4	2,154.76	1/4	2,516.79	1/4	2,877.02	1/4	3,238.92
1/2	29.81	1/2	369.50	1/2	730.56	1/2	1,083.88	1/2	1,438.23	1/2	1,800.27	1/2	2,162.30	1/2	2,524.34	1/2	2,884.56	1/2	3,246.46
3/4	34.04	3/4	376.90	3/4	738.10	3/4	1,091.07	3/4	1,445.77	3/4	1,807.81	3/4	2,169.84	3/4	2,531.88	3/4	2,892.10	3/4	3,254.00
1	38.27	1	384.29	1	745.65	1	1,098.27	1	1,453.31	1	1,815.35	1	2,177.39	1	2,539.42	1	2,899.64	1	3,261.54
1/4	43.75	1/4	391.68	1/4	753.19	1/4	1,105.47	1/4	1,460.86	1/4	1,822.89	1/4	2,184.93	1/4	2,546.96	1/4	2,907.18	1/4	3,269.08
1/2	49.23	1/2	399.08	1/2	760.73	1/2	1,112.67	1/2	1,468.40	1/2	1,830.43	1/2	2,192.47	1/2	2,554.51	1/2	2,914.72	1/2	3,276.62
3/4	54.72	3/4	406.47	3/4	768.27	3/4	1,119.87	3/4	1,475.94	3/4	1,837.98	3/4	2,200.01	3/4	2,562.05	3/4	2,922.26	3/4	3,284.16
2	60.20	2	413.87	2	775.81	2	1,127.07	2	1,483.48	2	1,845.92	2	2,215.10	2	2,577.13	2	2,937.34	2	3,299.24
1/4	66.94	1/4	421.39	1/4	783.36	1/4	1,134.27	1/4	1,491.03	1/4	1,853.06	1/4	2,222.64	1/4	2,584.67	1/4	2,944.88	1/4	3,306.78
1/2	73.68	1/2	428.91	1/2	790.90	1/2	1,141.47	1/2	1,498.57	1/2	1,860.60	1/2	2,230.18	1/2	2,592.22	1/2	2,952.42	1/2	3,314.32
3/4	80.43	3/4	436.44	3/4	798.44	3/4	1,148.67	3/4	1,506.11	3/4	1,868.15	3/4	2,237.72	3/4	2,599.76	3/4	2,959.96	3/4	3,321.86
3	87.17	3	443.96	3	805.98	3	1,155.86	3	1,513.65	3	1,875.69	3	2,245.27	3	2,607.30	3	2,967.50	3	3,329.40
1/4	94.62	1/4	451.50	1/4	813.52	1/4	1,163.06	1/4	1,521.20	1/4	1,883.23	1/4	2,252.81	1/4	2,614.84	1/4	2,975.04	1/4	3,336.94
1/2	102.06	1/2	459.05	1/2	821.07	1/2	1,170.26	1/2	1,528.74	1/2	1,890.77	1/2	2,260.35	1/2	2,622.38	1/2	2,982.58	1/2	3,344.48
3/4	109.51	3/4	466.59	3/4	828.61	3/4	1,177.46	3/4	1,536.28	3/4	1,898.32	3/4	2,267.89	3/4	2,629.92	3/4	2,989.12	3/4	3,352.02
4	116.96	4	474.13	4	836.15	4	1,184.66	4	1,543.82	4	1,905.86	4	2,275.44	4	2,637.37	4	2,997.66	4	3,359.56
1/4	124.49	1/4	481.67	1/4	843.69	1/4	1,191.86	1/4	1,551.37	1/4	1,913.40	1/4	2,282.98	1/4	2,644.81	1/4	3,005.20	1/4	3,367.10
1/2	132.02	1/2	489.21	1/2	851.23	1/2	1,199.06	1/2	1,558.91	1/2	1,920.94	1/2	2,290.52	1/2	2,652.26	1/2	3,012.74	1/2	3,374.64
3/4	139.54	3/4	496.76	3/4	858.78	3/4	1,206.26	3/4	1,566.45	3/4	1,928.49	3/4	2,298.06	3/4	2,659.71	3/4	3,020.28	3/4	3,382.18
5	147.07	5	504.30	5	866.32	5	1,213.45	5	1,573.99	5	1,936.03	5	2,305.61	5	2,667.14	5	3,027.82	5	3,389.72
1/4	154.60	1/4	511.84	1/4	873.86	1/4	1,220.66	1/4	1,581.54	1/4	1,943.57	1/4	2,313.15	1/4	2,674.57	1/4	3,035.35	1/4	3,397.26
1/2	162.13	1/2	519.38	1/2	881.40	1/2	1,227.87	1/2	1,589.08	1/2	1,951.11	1/2	2,320.69	1/2	2,682.00	1/2	3,042.89	1/2	3,404.80
3/4	169.65	3/4	526.92	3/4	888.95	3/4	1,235.08	3/4	1,596.62	3/4	1,958.66	3/4	2,328.23	3/4	2,689.44	3/4	3,050.43	3/4	3,412.33
6	177.18	6	534.47	6	896.49	6	1,242.29	6	1,604.16	6	1,966.20	6	2,335.78	6	2,696.87	6	3,057.97	6	3,419.87
1/4	184.59	1/4	542.01	1/4	903.74	1/4	1,249.79	1/4	1,611.71	1/4	1,973.74	1/4	2,343.32	1/4	2,704.30	1/4	3,065.51	1/4	3,427.41
1/2	192.00	1/2	549.55	1/2	910.99	1/2	1,257.30	1/2	1,619.25	1/2	1,981.28	1/2	2,350.86	1/2	2,711.74	1/2	3,073.05	1/2	3,434.95
3/4	199.41	3/4	557.09	3/4	918.24	3/4	1,264.80	3/4	1,626.79	3/4	1,988.83	3/4	2,358.40	3/4	2,719.17	3/4	3,080.59	3/4	3,442.49
7	206.82	7	564.63	7	925.50	7	1,272.30	7	1,634.33	7	1,996.37	7	2,365.95	7	2,726.60	7	3,088.13	7	3,450.03
1/4	214.22	1/4	572.18	1/4	932.70	1/4	1,279.84	1/4	1,641.87	1/4	2,003.91	1/4	2,373.49	1/4	2,734.04	1/4	3,095.67	1/4	3,457.57
1/2	221.61	1/2	579.72	1/2	939.90	1/2	1,287.38	1/2	1,649.42	1/2	2,011.45	1/2	2,380.66	1/2	2,741.47	1/2	3,103.21	1/2	3,465.11
3/4	229.01	3/4	587.26	3/4	947.10	3/4	1,294.92	3/4	1,656.96	3/4	2,018.99	3/4	2,388.57	3/4	2,748.90	3/4	3,110.75	3/4	3,472.65
8	236.40	8	594.80	8	954.30	8	1,302.47	8	1,664.50	8	2,026.54	8	2,396.11	8	2,756.43	8	3,118.29	8	3,480.19
1/4	243.80	1/4	602.35	1/4	961.50	1/4	1,310.01	1/4	1,672.04	1/4	2,034.08	1/4	2,403.66	1/4	2,763.96	1/4	3,125.83	1/4	3,487.73
1/2	251.19	1/2	609.89	1/2	968.70	1/2	1,317.55	1/2	1,679.59	1/2	2,041.62	1/2	2,411.20	1/2	2,771.48	1/2	3,133.37	1/2	3,495.27
3/4	258.58	3/4	617.43	3/4	976.89	3/4	1,325.09	3/4	1,687.13	3/4	2,049.16	3/4	2,418.74	3/4	2,779.01	3/4	3,140.91	3/4	3,502.81
9	265.98	9	624.97	9	983.09	9	1,332.64	9	1,694.67	9	2,056.71	9	2,426.28	9	2,786.55	9	3,148.45	9	3,510.35
1/4	273.37	1/4	632.51	1/4	990.29	1/4	1,340.18	1/4	1,702.21	1/4	2,064.25	1/4	2,433.83	1/4	2,794.09	1/4	3,155.99	1/4	3,517.89
1/2	280.77	1/2	640.06	1/2	997.49	1/2	1,347.72	1/2	1,709.76	1/2	2,071.79	1/2	2,441.37	1/2	2,801.63	1/2	3,163.53	1/2	3,525.43
3/4	288.16	3/4	647.60	3/4	1,004.69	3/4	1,355.26	3/4	1,717.30	3/4	2,079.33	3/4	2,448.91	3/4	2,809.17	3/4	3,171.07	3/4	3,532.97
10	295.56	10	655.14	10	1,011.89	10	1,362.81	10	1,724.84	10	2,086.88	10	2,456.45	10	2,816.71	10	3,178.61	10	3,540.51
1/4	302.95	1/4	662.68	1/4	1,019.09	1/4	1,370.35	1/4	1,732.38	1/4	2,094.42	1/4	2,464.00	1/4	2,824.25	1/4	3,186.15	1/4	3,548.05
1/2	310.35	1/2	670.22	1/2	1,026.29	1/2	1,377.89	1/2	1,739.93	1/2	2,101.96	1/2	2,471.54	1/2	2,831.79	1/2	3,193.69	1/2	3,555.59
3/4	317.74	3/4	677.77	3/4	1,033.48	3/4	1,385.43	3/4	1,747.47	3/4	2,109.50	3/4	2,479.08	3/4	2,839.33	3/4	3,201.23	3/4	3,563.13
11	325.13	11	685.31	11	1,040.68	11	1,392.98	11	1,755.01	11	2,117.05	11	2,486.62	11	2,846.86	11	3,208.77	11	3,570.67
1/4	332.53	1/4	692.85	1/4	1,047.88	1/4	1,400.52	1/4	1,762.55	1/4	2,124.59	1/4	2,494.17	1/4	2,854.40	1/4	3,216.31	1/4	3,578.21
1/2	339.92	1/2	700.39	1/2	1,055.08	1/2	1,408.06	1/2	1,770.10	1/2	2,132.13	1/2	2,501.71	1/2	2,861.94	1/2	3,223.84	1/2	3,585.75
3/4	347.32	3/4	707.93	3/4	1,062.28	3/4	1,415.60	3/4	1,777.64	3/4	2,139.67	3/4	2,509.71	3/4	2,869.94	3/4	3,231.38	3/4	3,593.25

BARGE STRAPPED AND COMPUTED IN ACCORDANCE WITH MPMS CHAPTER 2.7.

CAPACITY TABLE ONLY APPLIES WHEN BARGE IS ON EVEN KEEL.

CAPACITY TABLE ONLY APPLIES TO EXTERIOR HEIGHT OF TANK.

CAPACITY TABLE ONLY APPLIES TO INNAGE GAUGES TAKEN TO TOP LIP OF 2" HERMETIC VALVE.
GAUGE POINT: (HERMETIC) LOCATED 10'-06" OFF CENTERLINE AND 42'-03" FORWARD OF AFT BULKHEAD.

CERTIFIED CHART FOR THE ABOVE NAMED TANK ONLY.

PRECISION MEASUREMENT
& ANALYSIS, INC.

P.O. Box 2082

Pearland, Texas 77588

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BARGE "EMS 510"

2 STBD INNAGE TABLE

CAPACITIES GIVEN IN BARRELS OF 42 U.S. GALLONS

10 FT.		11 FT.		12 FT.		13 FT.		14 FT.		15 FT.		16 FT.		17 FT.		18 FT.		19 FT.	
IN	0	IN	0	IN	0	IN	0	IN	0	IN	0	IN	0	IN	0	IN	0	IN	0
0	3,593.29	0	3,955.19	0	4,316.40	0	4,684.21	0	4,993.75	0	5,301.13	0	5,607.95	0	5,915.21	0	6,222.95	0	6,530.16
1/4	3,600.82	1/4	3,962.73	1/4	4,323.82	1/4	4,691.63	1/4	5,001.13	1/4	5,308.51	1/4	5,615.33	1/4	5,922.59	1/4	6,230.33	1/4	6,537.54
1/2	3,608.36	1/2	3,970.27	1/2	4,331.24	1/2	4,699.05	1/2	5,008.52	1/2	5,315.90	1/2	5,622.72	1/2	5,930.00	1/2	6,237.74	1/2	6,545.06
3/4	3,615.90	3/4	3,977.80	3/4	4,338.66	3/4	4,706.47	3/4	5,015.91	3/4	5,323.29	3/4	5,630.11	3/4	5,937.39	3/4	6,245.13	3/4	6,552.60
1	3,623.44	1	3,985.34	1	4,346.08	1	4,713.89	1	5,023.30	1	5,330.68	1	5,637.83	1	5,945.13	1	6,252.67	1	6,560.16
1/4	3,630.98	1/4	3,992.88	1/4	4,353.46	1/4	4,721.33	1/4	5,030.74	1/4	5,338.12	1/4	5,645.23	1/4	5,952.59	1/4	6,260.24	1/4	6,567.70
1/2	3,638.52	1/2	4,000.42	1/2	4,360.85	1/2	4,728.77	1/2	5,038.18	1/2	5,345.56	1/2	5,652.66	1/2	5,959.92	1/2	6,267.80	1/2	6,575.30
3/4	3,646.06	3/4	4,007.96	3/4	4,368.24	3/4	4,736.21	3/4	5,045.63	3/4	5,352.91	3/4	5,660.01	3/4	5,967.27	3/4	6,275.37	3/4	6,582.86
2	3,653.60	2	4,015.50	2	4,375.63	2	4,743.65	2	5,053.07	2	5,360.35	2	5,667.45	2	5,974.71	2	6,282.94	2	6,590.40
1/4	3,661.14	1/4	4,023.04	1/4	4,382.99	1/4	4,751.09	1/4	5,060.51	1/4	5,367.79	1/4	5,674.89	1/4	5,982.15	1/4	6,290.51	1/4	6,597.94
1/2	3,668.68	1/2	4,030.58	1/2	4,390.35	1/2	4,758.53	1/2	5,067.95	1/2	5,375.23	1/2	5,682.33	1/2	5,989.59	1/2	6,298.07	1/2	6,605.50
3/4	3,676.22	3/4	4,038.12	3/4	4,397.71	3/4	4,765.97	3/4	5,075.39	3/4	5,382.67	3/4	5,689.77	3/4	5,997.03	3/4	6,305.60	3/4	6,613.04
3	3,683.76	3	4,045.66	3	4,405.07	3	4,773.44	3	5,082.83	3	5,390.13	3	5,697.23	3	5,999.49	3	6,313.13	3	6,620.58
1/4	3,691.30	1/4	4,053.20	1/4	4,412.40	1/4	4,780.88	1/4	5,090.27	1/4	5,397.57	1/4	5,704.67	1/4	6,001.93	1/4	6,320.71	1/4	6,628.12
1/2	3,698.84	1/2	4,060.74	1/2	4,419.72	1/2	4,788.32	1/2	5,097.71	1/2	5,405.01	1/2	5,712.11	1/2	6,009.37	1/2	6,328.21	1/2	6,635.66
3/4	3,706.38	3/4	4,068.28	3/4	4,427.05	3/4	4,795.76	3/4	5,105.16	3/4	5,412.45	3/4	5,719.61	3/4	6,016.87	3/4	6,335.71	3/4	6,643.20
4	3,713.92	4	4,075.82	4	4,434.37	4	4,775.74	4	5,112.60	4	5,419.59	4	5,726.99	4	6,024.31	4	6,343.25	4	6,650.74
1/4	3,721.46	1/4	4,083.36	1/4	4,441.67	1/4	4,782.63	1/4	5,120.04	1/4	5,426.93	1/4	5,734.33	1/4	6,031.81	1/4	6,350.79	1/4	6,658.28
1/2	3,729.00	1/2	4,090.90	1/2	4,448.96	1/2	4,789.51	1/2	5,127.48	1/2	5,434.37	1/2	5,741.77	1/2	6,039.35	1/2	6,358.33	1/2	6,665.82
3/4	3,736.54	3/4	4,098.44	3/4	4,456.25	3/4	4,796.39	3/4	5,134.92	3/4	5,441.81	3/4	5,749.21	3/4	6,046.89	3/4	6,365.87	3/4	6,673.36
5	3,744.08	5	4,105.98	5	4,463.54	5	4,803.28	5	5,142.36	5	5,449.75	5	5,757.15	5	6,054.37	5	6,373.41	5	6,680.90
1/4	3,751.62	1/4	4,113.52	1/4	4,470.80	1/4	4,810.13	1/4	5,149.67	1/4	5,457.19	1/4	5,764.59	1/4	6,061.91	1/4	6,380.95	1/4	6,688.44
1/2	3,759.16	1/2	4,121.06	1/2	4,478.07	1/2	4,816.98	1/2	5,156.97	1/2	5,464.63	1/2	5,772.03	1/2	6,069.45	1/2	6,388.49	1/2	6,695.98
3/4	3,766.70	3/4	4,128.60	3/4	4,485.33	3/4	4,823.83	3/4	5,164.27	3/4	5,472.17	3/4	5,779.57	3/4	6,076.99	3/4	6,396.03	3/4	6,703.52
6	3,774.24	6	4,136.14	6	4,492.59	6	4,830.67	6	5,171.58	6	5,479.71	6	5,787.11	6	6,084.63	6	6,403.57	6	6,711.06
1/4	3,781.78	1/4	4,143.68	1/4	4,499.82	1/4	4,837.49	1/4	5,177.90	1/4	5,487.04	1/4	5,794.44	1/4	6,092.15	1/4	6,411.11	1/4	6,718.60
1/2	3,789.31	1/2	4,151.22	1/2	4,507.05	1/2	4,844.31	1/2	5,184.22	1/2	5,494.57	1/2	5,801.97	1/2	6,100.01	1/2	6,418.65	1/2	6,726.14
3/4	3,796.85	3/4	4,158.76	3/4	4,514.28	3/4	4,851.13	3/4	5,190.54	3/4	5,501.09	3/4	5,808.49	3/4	6,107.53	3/4	6,426.19	3/4	6,733.68
7	3,804.39	7	4,166.29	7	4,521.51	7	4,857.95	7	5,196.86	7	5,512.41	7	5,819.81	7	6,115.07	7	6,433.73	7	6,741.22
1/4	3,811.93	1/4	4,173.83	1/4	4,528.71	1/4	4,864.74	1/4	5,201.97	1/4	5,517.42	1/4	5,824.92	1/4	6,122.61	1/4	6,441.27	1/4	6,748.76
1/2	3,819.47	1/2	4,181.37	1/2	4,535.91	1/2	4,871.53	1/2	5,207.08	1/2	5,524.97	1/2	5,831.97	1/2	6,129.65	1/2	6,448.81	1/2	6,756.30
3/4	3,827.01	3/4	4,188.91	3/4	4,543.11	3/4	4,878.32	3/4	5,212.19	3/4	5,532.11	3/4	5,839.11	3/4	6,136.69	3/4	6,456.35	3/4	6,763.84
8	3,834.55	8	4,196.45	8	4,550.31	8	4,885.10	8	5,217.30	8	5,537.22	8	5,844.22	8	6,143.73	8	6,463.89	8	6,771.38
1/4	3,842.09	1/4	4,203.99	1/4	4,557.47	1/4	4,891.86	1/4	5,222.41	1/4	5,544.33	1/4	5,849.43	1/4	6,150.81	1/4	6,471.43	1/4	6,778.92
1/2	3,849.63	1/2	4,211.53	1/2	4,564.64	1/2	4,898.62	1/2	5,227.52	1/2	5,549.44	1/2	5,854.54	1/2	6,157.85	1/2	6,478.97	1/2	6,786.46
3/4	3,857.17	3/4	4,219.06	3/4	4,571.80	3/4	4,905.38	3/4	5,232.63	3/4	5,556.55	3/4	5,859.65	3/4	6,164.95	3/4	6,486.51	3/4	6,794.00
9	3,864.71	9	4,226.60	9	4,578.96	9	4,912.14	9	5,237.74	9	5,561.67	9	5,864.77	9	6,172.05	9	6,494.05	9	6,801.54
1/4	3,872.25	1/4	4,234.11	1/4	4,586.10	1/4	4,918.87	1/4	5,242.85	1/4	5,566.78	1/4	5,869.88	1/4	6,179.15	1/4	6,501.59	1/4	6,809.08
1/2	3,879.79	1/2	4,241.63	1/2	4,593.23	1/2	4,925.59	1/2	5,247.96	1/2	5,571.89	1/2	5,874.99	1/2	6,186.25	1/2	6,509.13	1/2	6,816.62
3/4	3,887.33	3/4	4,249.15	3/4	4,600.37	3/4	4,932.32	3/4	5,253.07	3/4	5,577.01	3/4	5,880.11	3/4	6,193.35	3/4	6,516.67	3/4	6,824.16
10	3,894.87	10	4,256.66	10	4,607.50	10	4,939.05	10	5,258.18	10	5,582.12	10	5,885.22	10	6,200.47	10	6,524.21	10	6,831.70
1/4	3,902.41	1/4	4,264.15	1/4	4,614.60	1/4	4,945.74	1/4	5,263.29	1/4	5,587.25	1/4	5,890.35	1/4	6,207.61	1/4	6,531.75	1/4	6,839.24
1/2	3,909.95	1/2	4,271.63	1/2	4,621.71	1/2	4,952.44	1/2	5,268.40	1/2	5,592.36	1/2	5,895.46	1/2	6,214.75	1/2	6,539.29	1/2	6,846.78
3/4	3,917.49	3/4	4,279.11	3/4	4,628.81	3/4	4,959.13	3/4	5,273.51	3/4	5,597.47	3/4	5,900.57	3/4	6,221.85	3/4	6,546.83	3/4	6,854.32
11	3,925.03	11	4,286.60	11	4,635.91	11	4,965.82	11	5,278.62	11	5,602.59	11	5,905.65	11	6,227.97	11	6,554.37	11	6,861.86
1/4	3,932.57	1/4	4,294.05	1/4	4,642.99	1/4	4,972.80	1/4	5,283.73	1/4	5,607.71	1/4	5,910.77	1/4	6,233.07	1/4	6,561.91	1/4	6,869.40
1/2	3,940.11	1/2	4,301.50	1/2	4,650.06	1/2	4,979.78	1/2	5,288.84	1/2	5,612.81	1/2	5,915.89	1/2	6,238.19	1/2	6,569.45	1/2	6,876.94
3/4	3,947.65	3/4	4,308.95	3/4	4,657.13	3/4	4,986.77	3/4	5,293.95	3/4	5,617.92	3/4	5,920.96	3/4	6,243.31	3/4	6,577.00	3/4	6,884.48

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CANCELS AND SUPERCEDES
ALL PRIOR TO 11/20/18

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PRECISION MEASUREMENT
& ANALYSIS, INC.

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Paul J. Mac



BARGE "EMS 510"

3 PORT INNAGE TABLE

CAPACITIES GIVEN IN BARRELS OF 42 U.S. GALLONS

0 FT.		1 FT.		2 FT.		3 FT.		4 FT.		5 FT.		6 FT.		7 FT.		8 FT.		9 FT.	
IN	0 FT.	IN	1 FT.	IN	2 FT.	IN	3 FT.	IN	4 FT.	IN	5 FT.	IN	6 FT.	IN	7 FT.	IN	8 FT.	IN	9 FT.
0	21.28	0	353.40	0	712.84	0	1,073.33	0	1,433.87	0	1,794.58	0	2,155.26	0	2,515.89	0	2,876.32	0	3,235.87
1/4	25.49	1/4	360.77	1/4	720.35	1/4	1,080.83	1/4	1,441.39	1/4	1,802.10	1/4	2,162.78	1/4	2,523.40	1/4	2,883.82	1/4	3,243.34
1/2	29.70	1/2	368.13	1/2	727.87	1/2	1,088.34	1/2	1,448.90	1/2	1,809.61	1/2	2,170.29	1/2	2,530.91	1/2	2,891.32	1/2	3,250.80
3/4	33.92	3/4	375.50	3/4	735.38	3/4	1,095.85	3/4	1,456.42	3/4	1,817.13	3/4	2,177.80	3/4	2,538.43	3/4	2,898.82	3/4	3,258.27
1	38.13	1	382.87	1	742.90	1	1,103.35	1	1,463.93	1	1,824.64	1	2,185.32	1	2,545.94	1	2,906.52	1	3,266.73
1/4	43.59	1/4	390.23	1/4	750.41	1/4	1,110.86	1/4	1,471.45	1/4	1,832.16	1/4	2,193.83	1/4	2,554.45	1/4	2,915.03	1/4	3,275.62
1/2	49.06	1/2	397.60	1/2	757.93	1/2	1,118.36	1/2	1,478.96	1/2	1,839.67	1/2	2,200.34	1/2	2,560.97	1/2	2,921.55	1/2	3,280.66
3/4	54.52	3/4	404.97	3/4	765.44	3/4	1,125.87	3/4	1,486.48	3/4	1,847.19	3/4	2,207.86	3/4	2,568.48	3/4	2,928.81	3/4	3,288.12
2	59.98	2	412.33	2	772.95	2	1,133.37	2	1,493.99	2	1,854.70	2	2,215.37	2	2,575.99	2	2,936.31	2	3,295.59
1/4	66.70	1/4	419.83	1/4	780.47	1/4	1,140.88	1/4	1,501.51	1/4	1,862.22	1/4	2,222.88	1/4	2,583.51	1/4	2,943.81	1/4	3,303.05
1/2	73.42	1/2	427.32	1/2	787.98	1/2	1,148.38	1/2	1,509.02	1/2	1,869.73	1/2	2,230.39	1/2	2,591.02	1/2	2,951.31	1/2	3,310.52
3/4	80.13	3/4	434.82	3/4	795.50	3/4	1,155.89	3/4	1,516.54	3/4	1,877.25	3/4	2,237.91	3/4	2,598.53	3/4	2,958.81	3/4	3,317.98
3	86.85	3	442.32	3	803.01	3	1,163.39	3	1,524.05	3	1,884.76	3	2,245.42	3	2,606.04	3	2,966.31	3	3,325.45
1/4	94.27	1/4	449.83	1/4	810.53	1/4	1,170.90	1/4	1,531.56	1/4	1,892.28	1/4	2,252.93	1/4	2,613.56	1/4	2,973.81	1/4	3,332.93
1/2	101.69	1/2	457.35	1/2	818.04	1/2	1,178.40	1/2	1,539.08	1/2	1,899.79	1/2	2,260.45	1/2	2,621.07	1/2	2,981.31	1/2	3,340.40
3/4	109.11	3/4	464.86	3/4	825.56	3/4	1,185.91	3/4	1,546.59	3/4	1,907.30	3/4	2,267.96	3/4	2,628.58	3/4	2,988.80	3/4	3,347.88
4	116.54	4	472.37	4	833.07	4	1,193.41	4	1,554.11	4	1,914.82	4	2,275.47	4	2,636.09	4	2,996.30	4	3,355.36
1/4	124.04	1/4	479.89	1/4	840.59	1/4	1,200.93	1/4	1,561.62	1/4	1,922.33	1/4	2,282.99	1/4	2,643.60	1/4	3,003.80	1/4	3,362.84
1/2	131.54	1/2	487.40	1/2	848.10	1/2	1,208.44	1/2	1,569.14	1/2	1,929.85	1/2	2,290.50	1/2	2,651.11	1/2	3,011.30	1/2	3,370.32
3/4	139.04	3/4	494.92	3/4	855.61	3/4	1,215.95	3/4	1,576.65	3/4	1,937.36	3/4	2,298.01	3/4	2,658.63	3/4	3,018.80	3/4	3,377.80
5	146.54	5	502.43	5	863.13	5	1,223.46	5	1,584.17	5	1,944.88	5	2,305.52	5	2,666.14	5	3,026.30	5	3,385.28
1/4	154.03	1/4	509.95	1/4	870.64	1/4	1,230.97	1/4	1,591.68	1/4	1,952.39	1/4	2,313.04	1/4	2,673.65	1/4	3,033.80	1/4	3,392.76
1/2	161.53	1/2	517.46	1/2	878.16	1/2	1,238.49	1/2	1,599.20	1/2	1,959.91	1/2	2,320.55	1/2	2,681.16	1/2	3,041.30	1/2	3,400.24
3/4	169.03	3/4	524.98	3/4	885.67	3/4	1,246.00	3/4	1,606.71	3/4	1,967.42	3/4	2,328.06	3/4	2,688.67	3/4	3,048.80	3/4	3,407.72
6	176.53	6	532.49	6	893.19	6	1,253.52	6	1,614.23	6	1,974.94	6	2,335.58	6	2,696.18	6	3,056.29	6	3,415.20
1/4	183.92	1/4	540.01	1/4	900.70	1/4	1,261.03	1/4	1,621.74	1/4	1,982.45	1/4	2,343.09	1/4	2,703.70	1/4	3,063.79	1/4	3,422.68
1/2	191.30	1/2	547.52	1/2	908.20	1/2	1,268.55	1/2	1,629.26	1/2	1,989.97	1/2	2,350.60	1/2	2,711.21	1/2	3,071.29	1/2	3,430.16
3/4	198.68	3/4	555.03	3/4	915.71	3/4	1,276.06	3/4	1,636.77	3/4	1,997.48	3/4	2,358.12	3/4	2,718.72	3/4	3,078.79	3/4	3,437.64
7	206.07	7	562.55	7	923.22	7	1,283.58	7	1,644.29	7	2,005.00	7	2,365.63	7	2,726.23	7	3,086.29	7	3,445.12
1/4	213.43	1/4	570.06	1/4	930.73	1/4	1,291.09	1/4	1,651.80	1/4	2,012.51	1/4	2,373.14	1/4	2,733.74	1/4	3,093.79	1/4	3,452.60
1/2	220.80	1/2	577.58	1/2	938.23	1/2	1,298.61	1/2	1,659.32	1/2	2,020.03	1/2	2,380.65	1/2	2,741.25	1/2	3,101.29	1/2	3,460.08
3/4	228.17	3/4	585.09	3/4	945.74	3/4	1,306.12	3/4	1,666.83	3/4	2,027.54	3/4	2,388.17	3/4	2,748.77	3/4	3,108.79	3/4	3,467.56
8	235.53	8	592.61	8	953.24	8	1,313.64	8	1,674.35	8	2,035.06	8	2,395.68	8	2,756.28	8	3,116.28	8	3,475.04
1/4	242.90	1/4	600.12	1/4	960.75	1/4	1,321.15	1/4	1,681.86	1/4	2,042.57	1/4	2,403.19	1/4	2,763.79	1/4	3,123.78	1/4	3,482.52
1/2	250.27	1/2	607.64	1/2	968.26	1/2	1,328.67	1/2	1,689.38	1/2	2,050.08	1/2	2,410.71	1/2	2,771.30	1/2	3,131.28	1/2	3,490.00
3/4	257.63	3/4	615.15	3/4	975.76	3/4	1,336.18	3/4	1,696.89	3/4	2,057.60	3/4	2,418.22	3/4	2,778.82	3/4	3,138.78	3/4	3,497.48
9	265.00	9	622.66	9	983.27	9	1,343.69	9	1,704.41	9	2,065.11	9	2,425.73	9	2,786.33	9	3,146.28	9	3,504.96
1/4	272.37	1/4	630.18	1/4	990.77	1/4	1,351.21	1/4	1,711.92	1/4	2,072.62	1/4	2,433.25	1/4	2,793.83	1/4	3,153.75	1/4	3,509.44
1/2	279.73	1/2	637.69	1/2	998.28	1/2	1,358.72	1/2	1,719.43	1/2	2,080.13	1/2	2,440.76	1/2	2,801.33	1/2	3,161.22	1/2	3,513.91
3/4	287.10	3/4	645.21	3/4	1,005.78	3/4	1,366.24	3/4	1,726.95	3/4	2,087.65	3/4	2,448.27	3/4	2,808.83	3/4	3,168.69	3/4	3,518.39
10	294.47	10	652.72	10	1,013.29	10	1,373.75	10	1,734.46	10	2,095.16	10	2,455.78	10	2,816.33	10	3,176.16	10	3,522.86
1/4	301.83	1/4	660.24	1/4	1,020.79	1/4	1,381.27	1/4	1,741.98	1/4	2,102.67	1/4	2,463.30	1/4	2,823.83	1/4	3,183.62	1/4	3,526.91
1/2	309.20	1/2	667.75	1/2	1,028.30	1/2	1,388.78	1/2	1,749.49	1/2	2,110.19	1/2	2,470.81	1/2	2,831.33	1/2	3,191.09	1/2	3,530.96
3/4	316.57	3/4	675.27	3/4	1,035.90	3/4	1,396.30	3/4	1,757.01	3/4	2,117.70	3/4	2,478.32	3/4	2,838.83	3/4	3,198.55	3/4	3,535.00
11	323.93	11	682.78	11	1,043.31	11	1,403.81	11	1,764.52	11	2,125.21	11	2,485.84	11	2,846.33	11	3,206.01	11	3,539.05
1/4	331.30	1/4	690.30	1/4	1,050.81	1/4	1,411.33	1/4	1,772.04	1/4	2,132.73	1/4	2,493.35	1/4	2,853.83	1/4	3,213.48	1/4	3,543.09
1/2	338.67	1/2	697.81	1/2	1,058.32	1/2	1,418.84	1/2	1,779.55	1/2	2,140.24	1/2	2,500.86	1/2	2,861.33	1/2	3,220.94	1/2	3,547.14
3/4	346.03	3/4	705.32	3/4	1,065.82	3/4	1,426.36	3/4	1,787.07	3/4	2,147.75	3/4	2,508.38	3/4	2,868.82	3/4	3,228.41	3/4	3,551.18

CERTIFIED CHART FOR THE ABOVE NAMED TANK ONLY.

BARGE STRAPPED AND COMPUTED IN ACCORDANCE WITH MPMS CHAPTER 2.7.

CAPACITY TABLE ONLY APPLIES WHEN BARGE IS ON EVEN KEEL.

CAPACITY TABLE EXTENDS TO EXTREME HEIGHT OF TANK.

CAPACITY TABLE ONLY APPLIES TO INNAGE GAUGES TAKEN TO TOP LIP OF 2" HERMETIC VALVE.

GAUGE POINT: (HERMETIC) LOCATED 10'-06" OFF CENTERLINE AND 42'-00" FORWARD OF AFT BULKHEAD.

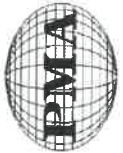
PRECISION MEASUREMENT

& ANALYSIS, INC.

P.O. Box 2092

Pearland, Texas 77586

<http://www.pmacorp.net>



BARGE "EMS 510"

3 PORT INNAGE TABLE

CAPACITIES GIVEN IN BARRELS OF 42 U.S. GALLONS

10 FT.		11 FT.		12 FT.		13 FT.		14 FT.		15 FT.		16 FT.		17 FT.		18 FT.		19 FT.	
IN	0	IN	0	IN	0	IN	0	IN	0	IN	0	IN	0	IN	0	IN	0	IN	0
0	3,555.23	0	3,749.42	0	3,942.93	0	4,123.08	0	4,285.73	0	4,425.73	0	4,555.73	0	4,675.73	0	4,785.73	0	4,885.73
1/4	3,559.28	1/4	3,753.47	1/4	3,946.95	1/4	4,126.63	1/4	4,289.67	1/4	4,429.67	1/4	4,559.67	1/4	4,679.67	1/4	4,789.67	1/4	4,889.67
1/2	3,563.32	1/2	3,757.51	1/2	3,950.78	1/2	4,130.17	1/2	4,293.61	1/2	4,433.61	1/2	4,563.61	1/2	4,683.61	1/2	4,793.61	1/2	4,893.61
3/4	3,567.37	3/4	3,761.56	3/4	3,954.71	3/4	4,133.72	3/4	4,297.55	3/4	4,437.55	3/4	4,567.55	3/4	4,687.55	3/4	4,797.55	3/4	4,897.55
1	3,571.41	1	3,765.61	1	3,958.63	1	4,137.27	1	4,301.49	1	4,441.49	1	4,571.49	1	4,691.49	1	4,801.49	1	4,901.49
1 1/4	3,575.46	1 1/4	3,769.65	1 1/4	3,962.53	1 1/4	4,140.77	1 1/4	4,305.49	1 1/4	4,445.49	1 1/4	4,575.49	1 1/4	4,695.49	1 1/4	4,805.49	1 1/4	4,905.49
1 1/2	3,579.50	1 1/2	3,773.70	1 1/2	3,966.42	1 1/2	4,144.27	1 1/2	4,309.48	1 1/2	4,449.48	1 1/2	4,579.48	1 1/2	4,699.48	1 1/2	4,809.48	1 1/2	4,909.48
3/4	3,583.55	3/4	3,777.74	3/4	3,970.32	3/4	4,147.77	3/4	4,313.47	3/4	4,453.47	3/4	4,583.47	3/4	4,703.47	3/4	4,813.47	3/4	4,913.47
2	3,587.60	2	3,781.79	2	3,974.22	2	4,151.28	2	4,317.47	2	4,457.47	2	4,587.47	2	4,707.47	2	4,817.47	2	4,917.47
1 1/4	3,591.64	1 1/4	3,785.88	1 1/4	3,978.08	1 1/4	4,154.74	1 1/4	4,321.46	1 1/4	4,457.46	1 1/4	4,587.46	1 1/4	4,707.46	1 1/4	4,817.46	1 1/4	4,917.46
1 1/2	3,595.69	1 1/2	3,789.88	1 1/2	3,981.95	1 1/2	4,158.21	1 1/2	4,325.45	1 1/2	4,459.45	1 1/2	4,589.45	1 1/2	4,709.45	1 1/2	4,819.45	1 1/2	4,919.45
3/4	3,599.73	3/4	3,793.93	3/4	3,985.81	3/4	4,161.68	3/4	4,329.44	3/4	4,463.44	3/4	4,593.44	3/4	4,713.44	3/4	4,823.44	3/4	4,923.44
3	3,603.78	3	3,797.97	3	3,989.68	3	4,165.15	3	4,333.44	3	4,465.44	3	4,595.44	3	4,715.44	3	4,825.44	3	4,925.44
1 1/4	3,607.82	1 1/4	3,802.02	1 1/4	3,993.51	1 1/4	4,168.59	1 1/4	4,337.43	1 1/4	4,469.43	1 1/4	4,599.43	1 1/4	4,719.43	1 1/4	4,829.43	1 1/4	4,929.43
1 1/2	3,611.87	1 1/2	3,806.06	1 1/2	3,997.35	1 1/2	4,172.03	1 1/2	4,341.42	1 1/2	4,471.42	1 1/2	4,601.42	1 1/2	4,721.42	1 1/2	4,831.42	1 1/2	4,931.42
3/4	3,615.91	3/4	3,810.11	3/4	4,001.18	3/4	4,175.47	3/4	4,345.41	3/4	4,475.41	3/4	4,605.41	3/4	4,725.41	3/4	4,835.41	3/4	4,935.41
4	3,619.96	4	3,814.15	4	4,005.01	4	4,178.91	4	4,349.41	4	4,479.41	4	4,609.41	4	4,729.41	4	4,839.41	4	4,939.41
1 1/4	3,624.01	1 1/4	3,818.20	1 1/4	4,008.81	1 1/4	4,182.31	1 1/4	4,353.40	1 1/4	4,483.40	1 1/4	4,613.40	1 1/4	4,733.40	1 1/4	4,843.40	1 1/4	4,943.40
1 1/2	3,628.05	1 1/2	3,822.25	1 1/2	4,012.61	1 1/2	4,185.72	1 1/2	4,357.39	1 1/2	4,487.39	1 1/2	4,617.39	1 1/2	4,737.39	1 1/2	4,847.39	1 1/2	4,947.39
3/4	3,632.10	3/4	3,826.29	3/4	4,016.41	3/4	4,189.13	3/4	4,361.39	3/4	4,491.39	3/4	4,621.39	3/4	4,741.39	3/4	4,851.39	3/4	4,951.39
5	3,636.14	5	3,830.34	5	4,020.21	5	4,192.53	5	4,365.38	5	4,495.38	5	4,625.38	5	4,745.38	5	4,855.38	5	4,955.38
1 1/4	3,640.19	1 1/4	3,834.38	1 1/4	4,023.98	1 1/4	4,195.91	1 1/4	4,369.24	1 1/4	4,499.24	1 1/4	4,629.24	1 1/4	4,749.24	1 1/4	4,859.24	1 1/4	4,959.24
1 1/2	3,644.23	1 1/2	3,838.43	1 1/2	4,027.74	1 1/2	4,199.28	1 1/2	4,373.09	1 1/2	4,503.09	1 1/2	4,633.09	1 1/2	4,753.09	1 1/2	4,863.09	1 1/2	4,963.09
3/4	3,648.28	3/4	3,842.47	3/4	4,031.51	3/4	4,202.65	3/4	4,376.95	3/4	4,506.95	3/4	4,636.95	3/4	4,756.95	3/4	4,866.95	3/4	4,966.95
6	3,652.33	6	3,846.52	6	4,035.28	6	4,206.02	6	4,380.81	6	4,510.81	6	4,640.81	6	4,760.81	6	4,870.81	6	4,970.81
1 1/4	3,656.37	1 1/4	3,850.57	1 1/4	4,039.02	1 1/4	4,209.36	1 1/4	4,383.69	1 1/4	4,513.69	1 1/4	4,643.69	1 1/4	4,763.69	1 1/4	4,873.69	1 1/4	4,973.69
1 1/2	3,660.42	1 1/2	3,854.61	1 1/2	4,042.76	1 1/2	4,212.71	1 1/2	4,386.57	1 1/2	4,516.57	1 1/2	4,646.57	1 1/2	4,766.57	1 1/2	4,876.57	1 1/2	4,976.57
3/4	3,664.46	3/4	3,858.66	3/4	4,046.50	3/4	4,216.05	3/4	4,389.45	3/4	4,519.45	3/4	4,649.45	3/4	4,769.45	3/4	4,879.45	3/4	4,979.45
7	3,668.51	7	3,862.70	7	4,050.24	7	4,219.39	7	4,392.32	7	4,522.32	7	4,652.32	7	4,772.32	7	4,882.32	7	4,982.32
1 1/4	3,672.55	1 1/4	3,866.75	1 1/4	4,053.94	1 1/4	4,222.70	1 1/4	4,395.98	1 1/4	4,525.98	1 1/4	4,655.98	1 1/4	4,775.98	1 1/4	4,885.98	1 1/4	4,985.98
1 1/2	3,676.60	1 1/2	3,870.79	1 1/2	4,057.65	1 1/2	4,226.01	1 1/2	4,399.64	1 1/2	4,529.64	1 1/2	4,659.64	1 1/2	4,779.64	1 1/2	4,889.64	1 1/2	4,989.64
3/4	3,680.65	3/4	3,874.84	3/4	4,061.35	3/4	4,229.32	3/4	4,401.35	3/4	4,531.35	3/4	4,661.35	3/4	4,781.35	3/4	4,891.35	3/4	4,991.35
8	3,684.69	8	3,878.89	8	4,065.06	8	4,232.64	8	4,404.69	8	4,534.69	8	4,664.69	8	4,784.69	8	4,894.69	8	4,994.69
1 1/4	3,688.74	1 1/4	3,882.93	1 1/4	4,068.73	1 1/4	4,235.92	1 1/4	4,407.93	1 1/4	4,537.93	1 1/4	4,667.93	1 1/4	4,787.93	1 1/4	4,897.93	1 1/4	4,997.93
1 1/2	3,692.78	1 1/2	3,886.97	1 1/2	4,072.40	1 1/2	4,239.20	1 1/2	4,409.20	1 1/2	4,539.20	1 1/2	4,669.20	1 1/2	4,789.20	1 1/2	4,899.20	1 1/2	4,999.20
3/4	3,696.83	3/4	3,891.01	3/4	4,076.07	3/4	4,242.48	3/4	4,412.48	3/4	4,542.48	3/4	4,672.48	3/4	4,792.48	3/4	4,902.48	3/4	4,999.20
9	3,700.87	9	3,895.05	9	4,079.74	9	4,245.76	9	4,415.76	9	4,545.76	9	4,675.76	9	4,795.76	9	4,905.76	9	4,999.20
1 1/4	3,704.92	1 1/4	3,899.07	1 1/4	4,083.39	1 1/4	4,249.01	1 1/4	4,419.01	1 1/4	4,549.01	1 1/4	4,679.01	1 1/4	4,799.01	1 1/4	4,909.01	1 1/4	4,999.20
1 1/2	3,708.97	1 1/2	3,903.10	1 1/2	4,087.03	1 1/2	4,252.26	1 1/2	4,422.26	1 1/2	4,552.26	1 1/2	4,682.26	1 1/2	4,802.26	1 1/2	4,912.26	1 1/2	4,999.20
3/4	3,713.01	3/4	3,907.12	3/4	4,090.67	3/4	4,255.51	3/4	4,425.51	3/4	4,555.51	3/4	4,685.51	3/4	4,805.51	3/4	4,915.51	3/4	4,999.20
10	3,717.06	10	3,911.14	10	4,094.31	10	4,258.76	10	4,428.76	10	4,558.76	10	4,688.76	10	4,808.76	10	4,918.76	10	4,999.20
1 1/4	3,721.10	1 1/4	3,915.13	1 1/4	4,097.92	1 1/4	4,261.97	1 1/4	4,431.97	1 1/4	4,561.97	1 1/4	4,691.97	1 1/4	4,811.97	1 1/4	4,921.97	1 1/4	4,999.20
1 1/2	3,725.15	1 1/2	3,919.12	1 1/2	4,101.53	1 1/2	4,265.19	1 1/2	4,435.19	1 1/2	4,565.19	1 1/2	4,695.19	1 1/2	4,815.19	1 1/2	4,925.19	1 1/2	4,999.20
3/4	3,729.19	3/4	3,923.11	3/4	4,105.14	3/4	4,268.40	3/4	4,438.40	3/4	4,568.40	3/4	4,698.40	3/4	4,818.40	3/4	4,928.40	3/4	4,999.20
11	3,733.24	11	3,927.10	11	4,108.75	11	4,271.62	11	4,441.62	11	4,571.62	11	4,701.62	11	4,821.62	11	4,931.62	11	4,999.20
1 1/4	3,737.29	1 1/4	3,931.06	1 1/4	4,112.33	1 1/4	4,275.15	1 1/4	4,445.15	1 1/4	4,575.15	1 1/4	4,705.15	1 1/4	4,825.15	1 1/4	4,935.15	1 1/4	4,999.20
1 1/2	3,741.33	1 1/2	3,935.02	1 1/2	4,115.92	1 1/2	4,278.67	1 1/2	4,448.67	1 1/2	4,578.67	1 1/2	4,708.67	1 1/2	4,828.67	1 1/2	4,938.67	1 1/2	4,999.20
3/4	3,745.38	3/4	3,938.97	3/4	4,119.50	3/4	4,282.20	3/4	4,452.20	3/4	4,582.20	3/4	4,712.20	3/4	4,832.20	3/4	4,942.20	3/4	4,999.20

STRAPPED: 11/16/2018 SW
CALCULATED: 11/19/2018 CL
PRINTED: 11/20/2018

CANCELS AND SUPERCEDES
ALL PRIOR TO 11/20/18

CERTIFIED CHART FOR THE ABOVE NAMED TANK ONLY

PRECISION MEASUREMENT
& ANALYSIS, INC.

P.O. Box 2092
Pearland, Texas 77588
<http://www.pmacorp.net>

Signature



BARGE "EMS 510"

3 STBD INNAGE TABLE

CAPACITIES GIVEN IN BARRELS OF 42 U.S. GALLONS

0 FT.		1 FT.		2 FT.		3 FT.		4 FT.		5 FT.		6 FT.		7 FT.		8 FT.		9 FT.	
IN	0 FT.	IN	1 FT.	IN	2 FT.	IN	3 FT.	IN	4 FT.	IN	5 FT.	IN	6 FT.	IN	7 FT.	IN	8 FT.	IN	9 FT.
0	21.28	0	352.97	0	711.93	0	1,060.58	0	1,414.21	0	1,773.81	0	2,133.90	0	2,493.94	0	2,852.08	0	3,210.86
1/4	25.50	1/4	360.32	1/4	719.43	1/4	1,067.75	1/4	1,421.65	1/4	1,781.31	1/4	2,141.40	1/4	2,501.44	1/4	2,859.57	1/4	3,218.31
1/2	29.71	1/2	367.68	1/2	726.94	1/2	1,074.92	1/2	1,429.09	1/2	1,788.81	1/2	2,148.90	1/2	2,508.94	1/2	2,867.05	1/2	3,225.77
3/4	33.92	3/4	375.04	3/4	734.44	3/4	1,082.08	3/4	1,436.53	3/4	1,796.32	3/4	2,156.41	3/4	2,516.44	3/4	2,874.54	3/4	3,233.22
1	38.14	1	382.39	1	741.95	1	1,089.25	1	1,443.97	1	1,803.82	1	2,163.91	1	2,523.94	1	2,882.03	1	3,240.67
1/4	43.59	1/4	389.75	1/4	749.45	1/4	1,096.42	1/4	1,451.41	1/4	1,811.32	1/4	2,171.41	1/4	2,531.45	1/4	2,889.51	1/4	3,248.12
1/2	49.05	1/2	397.11	1/2	756.96	1/2	1,103.58	1/2	1,458.85	1/2	1,818.82	1/2	2,178.91	1/2	2,538.95	1/2	2,896.99	1/2	3,255.58
3/4	54.50	3/4	404.46	3/4	764.46	3/4	1,110.75	3/4	1,466.29	3/4	1,826.33	3/4	2,186.41	3/4	2,546.45	3/4	2,904.47	3/4	3,263.03
2	59.96	2	411.82	2	771.96	2	1,117.92	2	1,473.73	2	1,833.83	2	2,193.91	2	2,553.95	2	2,911.95	2	3,270.48
1/4	66.66	1/4	419.31	1/4	779.47	1/4	1,125.08	1/4	1,481.23	1/4	1,841.33	1/4	2,201.41	1/4	2,561.45	1/4	2,919.43	1/4	3,277.93
1/2	73.36	1/2	426.79	1/2	786.97	1/2	1,132.25	1/2	1,488.72	1/2	1,848.83	1/2	2,208.91	1/2	2,568.95	1/2	2,926.91	1/2	3,285.38
3/4	80.05	3/4	434.28	3/4	794.48	3/4	1,139.42	3/4	1,496.22	3/4	1,856.34	3/4	2,216.41	3/4	2,576.45	3/4	2,934.38	3/4	3,292.84
3	86.75	3	441.76	3	801.98	3	1,146.58	3	1,503.71	3	1,863.84	3	2,223.91	3	2,583.95	3	2,941.86	3	3,300.29
1/4	94.16	1/4	449.27	1/4	809.24	1/4	1,154.00	1/4	1,511.22	1/4	1,871.34	1/4	2,231.41	1/4	2,593.45	1/4	2,949.34	1/4	3,307.76
1/2	101.57	1/2	456.77	1/2	816.50	1/2	1,161.41	1/2	1,518.72	1/2	1,878.84	1/2	2,238.91	1/2	2,598.95	1/2	2,956.82	1/2	3,315.22
3/4	108.98	3/4	464.28	3/4	823.75	3/4	1,168.83	3/4	1,526.22	3/4	1,885.35	3/4	2,246.41	3/4	2,606.45	3/4	2,964.30	3/4	3,322.69
4	116.39	4	471.78	4	831.01	4	1,176.24	4	1,533.72	4	1,893.85	4	2,253.92	4	2,613.95	4	2,971.78	4	3,330.15
1/4	123.89	1/4	479.28	1/4	838.20	1/4	1,183.67	1/4	1,541.23	1/4	1,901.35	1/4	2,261.42	1/4	2,621.35	1/4	2,979.26	1/4	3,337.62
1/2	131.38	1/2	486.79	1/2	845.40	1/2	1,191.09	1/2	1,548.73	1/2	1,908.85	1/2	2,268.92	1/2	2,628.76	1/2	2,986.74	1/2	3,345.09
3/4	138.88	3/4	494.29	3/4	852.60	3/4	1,198.52	3/4	1,556.23	3/4	1,916.36	3/4	2,276.42	3/4	2,636.16	3/4	2,994.22	3/4	3,352.56
5	146.37	5	501.80	5	859.79	5	1,205.94	5	1,563.73	5	1,923.86	5	2,283.92	5	2,643.57	5	3,001.70	5	3,360.03
1/4	153.86	1/4	509.30	1/4	866.98	1/4	1,213.37	1/4	1,571.24	1/4	1,931.36	1/4	2,291.42	1/4	2,650.96	1/4	3,009.18	1/4	3,367.49
1/2	161.36	1/2	516.81	1/2	874.18	1/2	1,220.79	1/2	1,578.74	1/2	1,938.96	1/2	2,298.92	1/2	2,658.36	1/2	3,016.65	1/2	3,374.96
3/4	168.85	3/4	524.31	3/4	881.37	3/4	1,228.22	3/4	1,586.24	3/4	1,946.37	3/4	2,306.42	3/4	2,665.75	3/4	3,024.13	3/4	3,382.43
6	176.34	6	531.82	6	888.56	6	1,235.64	6	1,593.75	6	1,953.87	6	2,313.92	6	2,673.14	6	3,031.61	6	3,389.90
1/4	183.71	1/4	539.32	1/4	895.73	1/4	1,243.08	1/4	1,601.25	1/4	1,961.37	1/4	2,321.42	1/4	2,680.53	1/4	3,039.09	1/4	3,397.37
1/2	191.08	1/2	546.83	1/2	902.90	1/2	1,250.52	1/2	1,608.76	1/2	1,968.88	1/2	2,328.92	1/2	2,687.93	1/2	3,046.57	1/2	3,404.83
3/4	198.46	3/4	554.33	3/4	910.08	3/4	1,257.96	3/4	1,616.25	3/4	1,976.38	3/4	2,336.42	3/4	2,695.32	3/4	3,054.05	3/4	3,412.30
7	205.83	7	561.84	7	917.25	7	1,265.39	7	1,623.76	7	1,983.88	7	2,343.93	7	2,702.71	7	3,061.53	7	3,419.77
1/4	213.19	1/4	569.34	1/4	924.42	1/4	1,272.84	1/4	1,631.26	1/4	1,991.38	1/4	2,351.43	1/4	2,710.10	1/4	3,069.01	1/4	3,427.24
1/2	220.54	1/2	576.84	1/2	931.58	1/2	1,280.28	1/2	1,638.76	1/2	1,998.89	1/2	2,358.93	1/2	2,717.50	1/2	3,076.50	1/2	3,434.70
3/4	227.90	3/4	584.35	3/4	938.75	3/4	1,287.72	3/4	1,646.26	3/4	2,006.39	3/4	2,366.43	3/4	2,724.89	3/4	3,083.99	3/4	3,442.17
8	235.26	8	591.85	8	945.92	8	1,295.16	8	1,653.77	8	2,013.89	8	2,373.93	8	2,732.28	8	3,091.47	8	3,449.64
1/4	242.61	1/4	599.36	1/4	953.08	1/4	1,302.60	1/4	1,661.27	1/4	2,021.39	1/4	2,381.43	1/4	2,739.77	1/4	3,098.96	1/4	3,457.11
1/2	249.97	1/2	606.86	1/2	960.25	1/2	1,310.04	1/2	1,668.77	1/2	2,028.89	1/2	2,388.93	1/2	2,747.26	1/2	3,106.44	1/2	3,464.58
3/4	257.33	3/4	614.37	3/4	967.42	3/4	1,317.48	3/4	1,676.27	3/4	2,036.39	3/4	2,396.43	3/4	2,754.75	3/4	3,113.93	3/4	3,472.04
9	264.68	9	621.87	9	974.56	9	1,324.92	9	1,683.78	9	2,043.89	9	2,403.93	9	2,762.23	9	3,121.42	9	3,479.51
1/4	272.04	1/4	629.38	1/4	981.75	1/4	1,332.36	1/4	1,691.28	1/4	2,051.39	1/4	2,411.43	1/4	2,769.72	1/4	3,128.87	1/4	3,483.97
1/2	279.40	1/2	636.88	1/2	988.92	1/2	1,339.80	1/2	1,698.78	1/2	2,058.89	1/2	2,418.93	1/2	2,777.21	1/2	3,136.33	1/2	3,488.44
3/4	286.75	3/4	644.39	3/4	996.08	3/4	1,347.24	3/4	1,706.28	3/4	2,066.40	3/4	2,426.43	3/4	2,784.70	3/4	3,143.79	3/4	3,492.90
10	294.11	10	651.89	10	1,003.25	10	1,354.68	10	1,713.79	10	2,073.90	10	2,433.93	10	2,792.19	10	3,151.24	10	3,497.36
1/4	301.47	1/4	659.40	1/4	1,010.42	1/4	1,362.12	1/4	1,721.29	1/4	2,081.40	1/4	2,441.44	1/4	2,799.67	1/4	3,158.70	1/4	3,501.39
1/2	308.82	1/2	666.90	1/2	1,017.58	1/2	1,369.56	1/2	1,728.79	1/2	2,088.90	1/2	2,448.94	1/2	2,807.16	1/2	3,166.15	1/2	3,505.42
3/4	316.18	3/4	674.40	3/4	1,024.75	3/4	1,377.01	3/4	1,736.29	3/4	2,096.40	3/4	2,456.44	3/4	2,814.65	3/4	3,173.60	3/4	3,509.46
11	323.54	11	681.91	11	1,031.92	11	1,384.45	11	1,743.80	11	2,103.90	11	2,463.94	11	2,822.13	11	3,181.05	11	3,513.49
1/4	330.90	1/4	689.41	1/4	1,039.08	1/4	1,391.89	1/4	1,751.30	1/4	2,111.44	1/4	2,471.44	1/4	2,829.62	1/4	3,188.50	1/4	3,517.52
1/2	338.25	1/2	696.92	1/2	1,046.25	1/2	1,399.33	1/2	1,758.80	1/2	2,118.90	1/2	2,478.94	1/2	2,837.11	1/2	3,195.96	1/2	3,521.59
3/4	345.61	3/4	704.42	3/4	1,053.42	3/4	1,406.77	3/4	1,766.30	3/4	2,126.40	3/4	2,486.44	3/4	2,844.59	3/4	3,203.41	3/4	3,525.59

CERTIFIED CHART FOR THE ABOVE NAMED TANK ONLY.

BARGE STRAPPED AND COMPUTED IN ACCORDANCE WITH MPMS CHAPTER 2.7.

CAPACITY TABLE ONLY APPLIES WHEN BARGE IS ON EVEN KEEL.

CAPACITY TABLE ONLY APPLIES TO EXTREME HEIGHT OF TANK.

CAPACITY TABLE ONLY APPLIES TO INNAE GAUGES TAKEN TO TOP LIP OF 2" HERMETIC VALVE.

GAUGE POINT: (HERMETIC) LOCATED 10'-06" OFF CENTERLINE AND 42'-00" FORWARD OF AFT BULKHEAD.

PRECISION MEASUREMENT
& ANALYSIS, INC.
P.O. Box 2092
Pearland, Texas 77588
<http://www.pmacorp.net>



BARGE "EMS 510"

3 STBD INNAGE TABLE

CAPACITIES GIVEN IN BARRELS OF 42 U.S. GALLONS

10 FT.		11 FT.		12 FT.		13 FT.		14 FT.		15 FT.		16 FT.		17 FT.		18 FT.		19 FT.	
IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT
0	3,529.62	0	3,723.17	0	3,916.02	0	4,095.52	0	4,257.52	0	4,411.52	0	4,557.52	0	4,694.52	0	4,821.52	0	4,939.52
1/4	3,533.65	1/4	3,727.20	1/4	3,919.94	1/4	4,099.06	1/4	4,261.44	1/4	4,417.44	1/4	4,563.44	1/4	4,699.44	1/4	4,826.44	1/4	4,944.44
1/2	3,537.68	1/2	3,731.23	1/2	3,923.85	1/2	4,102.59	1/2	4,265.37	1/2	4,421.37	1/2	4,567.37	1/2	4,703.37	1/2	4,830.37	1/2	4,948.37
3/4	3,541.71	3/4	3,735.27	3/4	3,927.76	3/4	4,106.12	3/4	4,268.30	3/4	4,427.30	3/4	4,573.30	3/4	4,709.30	3/4	4,836.30	3/4	4,954.30
1	3,545.75	1	3,739.30	1	3,931.67	1	4,109.66	1	4,272.33	1	4,431.33	1	4,577.33	1	4,713.33	1	4,840.33	1	4,958.33
1/4	3,549.78	1/4	3,743.33	1/4	3,935.55	1/4	4,113.15	1/4	4,276.20	1/4	4,437.20	1/4	4,583.20	1/4	4,719.20	1/4	4,846.20	1/4	4,964.20
1/2	3,553.81	1/2	3,747.36	1/2	3,939.44	1/2	4,116.83	1/2	4,280.18	1/2	4,441.18	1/2	4,587.18	1/2	4,723.18	1/2	4,850.18	1/2	4,968.18
3/4	3,557.84	3/4	3,751.39	3/4	3,943.32	3/4	4,120.12	3/4	4,281.16	3/4	4,442.16	3/4	4,588.16	3/4	4,724.16	3/4	4,851.16	3/4	4,969.16
2	3,561.88	2	3,755.43	2	3,947.20	2	4,123.61	2	4,285.14	2	4,444.14	2	4,590.14	2	4,726.14	2	4,853.14	2	4,971.14
1/4	3,565.91	1/4	3,759.46	1/4	3,951.06	1/4	4,127.06	1/4	4,289.12	1/4	4,446.12	1/4	4,592.12	1/4	4,728.12	1/4	4,855.12	1/4	4,973.12
1/2	3,569.94	1/2	3,763.49	1/2	3,954.91	1/2	4,130.52	1/2	4,291.08	1/2	4,448.08	1/2	4,594.08	1/2	4,730.08	1/2	4,857.08	1/2	4,975.08
3/4	3,573.97	3/4	3,767.52	3/4	3,958.76	3/4	4,133.98	3/4	4,301.08	3/4	4,450.08	3/4	4,596.08	3/4	4,732.08	3/4	4,859.08	3/4	4,977.08
3	3,578.01	3	3,771.56	3	3,962.61	3	4,137.43	3	4,305.06	3	4,454.06	3	4,600.06	3	4,736.06	3	4,863.06	3	4,981.06
1/4	3,582.04	1/4	3,775.59	1/4	3,966.43	1/4	4,140.96	1/4	4,309.04	1/4	4,458.04	1/4	4,604.04	1/4	4,740.04	1/4	4,867.04	1/4	4,985.04
1/2	3,586.07	1/2	3,779.62	1/2	3,970.25	1/2	4,144.28	1/2	4,313.02	1/2	4,461.02	1/2	4,607.02	1/2	4,743.02	1/2	4,870.02	1/2	4,989.02
3/4	3,590.10	3/4	3,783.65	3/4	3,974.07	3/4	4,147.71	3/4	4,317.00	3/4	4,465.00	3/4	4,611.00	3/4	4,747.00	3/4	4,874.00	3/4	4,993.00
4	3,594.13	4	3,787.69	4	3,977.89	4	4,151.13	4	4,320.98	4	4,469.98	4	4,615.98	4	4,751.98	4	4,878.98	4	4,997.98
1/4	3,598.17	1/4	3,791.72	1/4	3,981.67	1/4	4,154.53	1/4	4,324.96	1/4	4,473.96	1/4	4,619.96	1/4	4,755.96	1/4	4,882.96	1/4	5,001.96
1/2	3,602.20	1/2	3,795.75	1/2	3,985.46	1/2	4,157.92	1/2	4,328.93	1/2	4,477.93	1/2	4,623.93	1/2	4,759.93	1/2	4,886.93	1/2	5,005.93
3/4	3,606.23	3/4	3,799.78	3/4	3,989.25	3/4	4,161.31	3/4	4,332.91	3/4	4,481.31	3/4	4,627.31	3/4	4,763.31	3/4	4,890.31	3/4	5,009.31
5	3,610.26	5	3,803.81	5	3,993.03	5	4,164.70	5	4,336.89	5	4,484.89	5	4,630.89	5	4,766.89	5	4,893.89	5	5,012.89
1/4	3,614.30	1/4	3,807.85	1/4	3,996.79	1/4	4,168.06	1/4	4,340.74	1/4	4,490.74	1/4	4,636.74	1/4	4,772.74	1/4	4,899.74	1/4	5,018.74
1/2	3,618.33	1/2	3,811.88	1/2	4,000.54	1/2	4,171.42	1/2	4,344.58	1/2	4,494.58	1/2	4,640.58	1/2	4,776.58	1/2	4,903.58	1/2	5,022.58
3/4	3,622.36	3/4	3,815.91	3/4	4,004.30	3/4	4,174.78	3/4	4,348.42	3/4	4,498.42	3/4	4,644.42	3/4	4,780.42	3/4	4,907.42	3/4	5,026.42
6	3,626.39	6	3,819.94	6	4,008.05	6	4,178.14	6	4,352.27	6	4,502.27	6	4,648.27	6	4,784.27	6	4,911.27	6	5,030.27
1/4	3,630.43	1/4	3,823.98	1/4	4,011.78	1/4	4,181.46	1/4	4,356.13	1/4	4,506.13	1/4	4,652.13	1/4	4,788.13	1/4	4,915.13	1/4	5,034.13
1/2	3,634.46	1/2	3,828.01	1/2	4,015.50	1/2	4,184.79	1/2	4,359.99	1/2	4,509.99	1/2	4,655.99	1/2	4,791.99	1/2	4,918.99	1/2	5,038.99
3/4	3,638.49	3/4	3,832.04	3/4	4,019.23	3/4	4,188.12	3/4	4,363.86	3/4	4,513.86	3/4	4,659.86	3/4	4,795.86	3/4	4,922.86	3/4	5,042.86
7	3,642.52	7	3,836.07	7	4,022.95	7	4,191.45	7	4,367.73	7	4,517.73	7	4,663.73	7	4,799.73	7	4,926.73	7	5,046.73
1/4	3,646.55	1/4	3,840.10	1/4	4,026.64	1/4	4,194.75	1/4	4,371.57	1/4	4,519.57	1/4	4,665.57	1/4	4,801.57	1/4	4,928.57	1/4	5,048.57
1/2	3,650.59	1/2	3,844.14	1/2	4,030.33	1/2	4,198.04	1/2	4,375.40	1/2	4,522.40	1/2	4,668.40	1/2	4,804.40	1/2	4,931.40	1/2	5,050.40
3/4	3,654.62	3/4	3,848.17	3/4	4,034.03	3/4	4,201.34	3/4	4,380.66	3/4	4,526.66	3/4	4,672.66	3/4	4,808.66	3/4	4,935.66	3/4	5,054.66
8	3,658.65	8	3,852.20	8	4,037.72	8	4,204.64	8	4,384.60	8	4,530.60	8	4,676.60	8	4,812.60	8	4,939.60	8	5,058.60
1/4	3,662.68	1/4	3,856.23	1/4	4,041.38	1/4	4,207.91	1/4	4,388.91	1/4	4,534.91	1/4	4,680.91	1/4	4,816.91	1/4	4,943.91	1/4	5,062.91
1/2	3,666.72	1/2	3,860.26	1/2	4,045.03	1/2	4,211.18	1/2	4,392.18	1/2	4,538.18	1/2	4,684.18	1/2	4,820.18	1/2	4,947.18	1/2	5,066.18
3/4	3,670.75	3/4	3,864.28	3/4	4,048.69	3/4	4,214.44	3/4	4,395.44	3/4	4,541.44	3/4	4,687.44	3/4	4,823.44	3/4	4,950.44	3/4	5,069.44
9	3,674.78	9	3,868.31	9	4,052.35	9	4,217.71	9	4,399.71	9	4,545.71	9	4,691.71	9	4,827.71	9	4,954.71	9	5,073.71
1/4	3,678.81	1/4	3,872.32	1/4	4,056.98	1/4	4,220.95	1/4	4,402.95	1/4	4,548.95	1/4	4,694.95	1/4	4,830.95	1/4	4,957.95	1/4	5,077.95
1/2	3,682.85	1/2	3,876.33	1/2	4,059.61	1/2	4,224.18	1/2	4,406.18	1/2	4,552.18	1/2	4,698.18	1/2	4,834.18	1/2	4,961.18	1/2	5,081.18
3/4	3,686.88	3/4	3,880.33	3/4	4,063.23	3/4	4,227.42	3/4	4,409.42	3/4	4,555.42	3/4	4,701.42	3/4	4,837.42	3/4	4,964.42	3/4	5,085.42
10	3,690.91	10	3,884.34	10	4,066.86	10	4,230.55	10	4,412.55	10	4,558.55	10	4,704.55	10	4,840.55	10	4,967.55	10	5,089.55
1/4	3,694.94	1/4	3,888.32	1/4	4,070.46	1/4	4,233.85	1/4	4,415.85	1/4	4,561.85	1/4	4,707.85	1/4	4,843.85	1/4	4,970.85	1/4	5,093.85
1/2	3,698.97	1/2	3,892.30	1/2	4,074.06	1/2	4,237.05	1/2	4,420.05	1/2	4,566.05	1/2	4,708.05	1/2	4,844.05	1/2	4,971.05	1/2	5,094.05
3/4	3,703.01	3/4	3,896.27	3/4	4,077.65	3/4	4,240.25	3/4	4,423.25	3/4	4,569.25	3/4	4,711.25	3/4	4,847.25	3/4	4,974.25	3/4	5,097.25
11	3,707.04	11	3,900.25	11	4,081.25	11	4,243.46	11	4,426.46	11	4,572.46	11	4,714.46	11	4,850.46	11	4,977.46	11	5,100.46
1/4	3,711.07	1/4	3,904.19	1/4	4,084.82	1/4	4,246.97	1/4	4,431.97	1/4	4,577.97	1/4	4,719.97	1/4	4,857.97	1/4	4,984.97	1/4	5,104.97
1/2	3,715.10	1/2	3,908.14	1/2	4,088.39	1/2	4,250.49	1/2	4,436.49	1/2	4,582.49	1/2	4,724.49	1/2	4,862.49	1/2	4,989.49	1/2	5,108.49
3/4	3,719.14	3/4	3,912.08	3/4	4,091.95	3/4	4,254.00	3/4	4,441.00	3/4	4,587.00	3/4	4,729.00	3/4	4,869.00	3/4	4,996.00	3/4	5,112.00

STRAPPED: 11/16/2018 SW
CALCULATED: 11/19/2018 CL
PRINTED: 11/20/2018

CANCELS AND SUPERCEDES
ALL PRIOR TO 11/20/18

CERTIFIED CHART FOR THE ABOVE NAMED TANK ONLY.

PRECISION MEASUREMENT
& ANALYSIS, INC.

P.O. Box 2062
Pearland, Texas 77588
<http://www.pmacorp.net>



BARGE "EMS 510"

ULLAGE TRIM TABLE

	1 FT.		2 FT.		3 FT.		4 FT.		5 FT.		6 FT.	
	BOW	STERN	BOW	STERN	BOW	STERN	BOW	STERN	BOW	STERN	BOW	STERN
1 PORT	00-1/2	- 00-1/2	01-1/8	- 01-1/8	01-5/8	- 01-5/8	02-1/8	- 02-1/8	02-3/4	- 02-3/4	03-1/4	- 03-1/4
1 STBD	00-1/2	- 00-1/2	01-1/8	- 01-1/8	01-5/8	- 01-5/8	02-1/8	- 02-1/8	02-3/4	- 02-3/4	03-1/4	- 03-1/4
2 PORT	- 00-0/8	00-0/8	- 00-1/8	00-1/8	- 00-1/8	00-1/8	- 00-1/4	00-1/4	- 00-1/4	00-1/4	- 00-1/4	00-1/4
2 STBD	- 00-0/8	00-0/8	- 00-1/8	00-1/8	- 00-1/8	00-1/8	- 00-1/4	00-1/4	- 00-1/4	00-1/4	- 00-1/4	00-1/4
3 PORT	- 00-0/8	00-0/8	- 00-1/8	00-1/8	- 00-1/8	00-1/8	- 00-1/4	00-1/4	- 00-1/4	00-1/4	- 00-1/4	00-1/4
3 STBD	- 00-0/8	00-0/8	- 00-1/8	00-1/8	- 00-1/8	00-1/8	- 00-1/4	00-1/4	- 00-1/4	00-1/4	- 00-1/4	00-1/4

(ALL MEASUREMENTS ABOVE ARE IN INCHES)

EXAMPLE FOR ABOVE TRIM CORRECTIONS:

FWD. DRAFT = 2'-00"
AFT DRAFT = 4'-00"
DIFF. = 2'-00" (DOWN BY STERN)

THE CORRECTION FOR 2'-00" TRIM DOWN BY STERN FOR 2 PORT IS 00-1/8"
FOR A MEASURED ULLAGE GAUGE OF 4'-00" ON 2 PORT, THE TRIM CORRECTED ULLAGE IS 4'-00 1/8"

LENGTH BETWEEN DRAFT MARKS: 259'-00"

November 16, 2018

PRECISION MEASUREMENT
& ANALYSIS, INC.
P.O. Box 2092
Pearland, Texas 77588

<http://www.pmacorp.net>

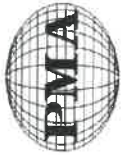


GAUGE HEIGHT 17'-03 1/4"

CERTIFIED CHART FOR THE ABOVE NAMED TANK ONLY:

CAPACITY TABLE ONLY APPLIES TO ULLAGE GAUGES TAKEN WITH "HERMETIC CLOSED GAUGING DEVICE"
GAUGE POINT: (HERMETIC) LOCATED 10'-06" OFF CENTERLINE AND 55'-03" FORWARD OF AFT BULKHEAD.

[Signature]



BARGE "EMS 510"

1 PORT ULLAGE TABLE

CAPACITIES GIVEN IN BARRELS OF 42 U.S. GALLONS

10 FT.		11 FT.		12 FT.		13 FT.		14 FT.		15 FT.		16 FT.		17 FT.		18 FT.		19 FT.	
IN	0	IN	0	IN	0	IN	0	IN	0	IN	0	IN	0	IN	0	IN	0	IN	0
0	2,630.98	0	2,267.88	0	1,904.77	0	1,541.67	0	1,178.65	0	815.96	0	452.86	0	94.90	0			
1/4	2,623.42	1/4	1,897.21	1/4	1,534.10	1/4	1,171.10	1/4	808.39	1/4	445.29	1/4	87.43	1/4		1/4			
1/2	2,615.85	1/2	2,262.75	1/2	1,889.64	1/2	1,526.54	1/2	1,163.55	1/2	800.82	1/2	437.75	1/2	80.67	1/2			
3/4	2,608.29	3/4	2,245.18	3/4	1,882.08	3/4	1,518.97	3/4	1,156.00	3/4	793.26	3/4	430.20	3/4	73.91	3/4			
1	2,600.73	1	2,237.62	1	1,874.51	1	1,511.41	1	1,148.44	1	785.69	1	422.65	1	67.15	1			
1/4	2,593.16	1/4	2,230.05	1/4	1,866.95	1/4	1,503.84	1/4	1,140.89	1/4	778.13	1/4	415.11	1/4	60.38	1/4			
1/2	2,585.60	1/2	2,222.49	1/2	1,859.38	1/2	1,496.28	1/2	1,133.34	1/2	770.56	1/2	407.69	1/2	54.88	1/2			
3/4	2,578.03	3/4	2,214.93	3/4	1,851.82	3/4	1,488.71	3/4	1,125.79	3/4	763.00	3/4	400.27	3/4	49.38	3/4			
2	2,570.47	2	2,207.36	2	1,844.26	2	1,481.15	2	1,118.23	2	755.43	2	392.86	2	43.88	2			
1/4	2,562.90	1/4	2,199.80	1/4	1,836.69	1/4	1,473.58	1/4	1,110.68	1/4	747.87	1/4	385.44	1/4	38.38	1/4			
1/2	2,555.34	1/2	2,192.23	1/2	1,829.13	1/2	1,466.02	1/2	1,103.13	1/2	740.31	1/2	378.02	1/2	34.14	1/2			
3/4	2,547.77	3/4	2,184.67	3/4	1,821.56	3/4	1,458.46	3/4	1,095.58	3/4	732.74	3/4	370.61	3/4	29.90	3/4			
3	2,540.21	3	2,177.10	3	1,814.00	3	1,450.89	3	1,088.02	3	725.18	3	363.19	3	25.66	3			
1/4	2,532.64	1/4	2,169.54	1/4	1,806.43	1/4	1,443.33	1/4	1,080.47	1/4	717.61	1/4	355.78	1/4	21.42	1/4			
1/2	2,525.08	1/2	2,161.97	1/2	1,798.87	1/2	1,435.76	1/2	1,072.92	1/2	710.05	1/2	348.36	1/2		1/2			
3/4	2,517.51	3/4	2,154.41	3/4	1,791.30	3/4	1,428.20	3/4	1,065.37	3/4	702.48	3/4	340.94	3/4		3/4			
4	2,509.95	4	2,146.84	4	1,783.74	4	1,420.63	4	1,057.81	4	694.92	4	333.53	4	4	4			
1/4	2,502.38	1/4	2,139.28	1/4	1,776.17	1/4	1,413.07	1/4	1,050.26	1/4	687.35	1/4	326.11	1/4		1/4			
1/2	2,494.82	1/2	2,131.71	1/2	1,768.61	1/2	1,405.50	1/2	1,042.71	1/2	679.79	1/2	318.69	1/2		1/2			
3/4	2,487.25	3/4	2,124.15	3/4	1,761.04	3/4	1,397.94	3/4	1,035.16	3/4	672.23	3/4	311.28	3/4		3/4			
5	2,479.69	5	2,116.58	5	1,753.48	5	1,390.37	5	1,027.60	5	664.66	5	303.86	5	5	5			
1/4	2,472.13	1/4	2,109.02	1/4	1,745.91	1/4	1,382.81	1/4	1,020.05	1/4	657.10	1/4	296.44	1/4		1/4			
1/2	2,464.56	1/2	2,101.45	1/2	1,738.35	1/2	1,375.24	1/2	1,012.50	1/2	649.53	1/2	289.03	1/2		1/2			
3/4	2,457.00	3/4	2,093.89	3/4	1,730.78	3/4	1,367.68	3/4	1,004.95	3/4	641.97	3/4	281.61	3/4		3/4			
6	2,449.43	6	2,086.33	6	1,723.22	6	1,360.11	6	997.39	6	634.40	6	274.19	6	6	6			
1/4	2,441.87	1/4	2,078.76	1/4	1,715.66	1/4	1,352.55	1/4	989.84	1/4	626.84	1/4	266.78	1/4		1/4			
1/2	2,434.30	1/2	2,071.20	1/2	1,708.09	1/2	1,344.98	1/2	982.29	1/2	619.28	1/2	259.36	1/2		1/2			
3/4	2,426.74	3/4	2,063.63	3/4	1,700.53	3/4	1,337.42	3/4	974.74	3/4	611.71	3/4	251.94	3/4		3/4			
7	2,419.17	7	2,056.07	7	1,692.96	7	1,329.86	7	967.19	7	604.15	7	244.53	7	7	7			
1/4	2,411.61	1/4	2,048.50	1/4	1,685.40	1/4	1,322.29	1/4	959.63	1/4	596.58	1/4	237.11	1/4		1/4			
1/2	2,404.04	1/2	2,040.94	1/2	1,677.83	1/2	1,314.73	1/2	952.08	1/2	589.02	1/2	229.69	1/2		1/2			
3/4	2,396.48	3/4	2,033.37	3/4	1,670.27	3/4	1,307.16	3/4	944.52	3/4	581.45	3/4	222.28	3/4		3/4			
8	2,388.91	8	2,025.81	8	1,662.70	8	1,299.60	8	936.97	8	573.89	8	214.86	8	8	8			
1/4	2,381.35	1/4	2,018.24	1/4	1,655.14	1/4	1,292.03	1/4	929.42	1/4	566.32	1/4	207.44	1/4		1/4			
1/2	2,373.78	1/2	2,010.68	1/2	1,647.57	1/2	1,284.47	1/2	921.85	1/2	558.76	1/2	200.01	1/2		1/2			
3/4	2,366.22	3/4	2,003.11	3/4	1,640.01	3/4	1,276.90	3/4	914.29	3/4	551.20	3/4	192.58	3/4		3/4			
9	2,358.65	9	1,995.55	9	1,632.44	9	1,269.34	9	906.72	9	543.63	9	185.14	9	9	9			
1/4	2,351.09	1/4	1,987.98	1/4	1,624.88	1/4	1,261.77	1/4	899.16	1/4	536.07	1/4	177.71	1/4		1/4			
1/2	2,343.53	1/2	1,980.42	1/2	1,617.31	1/2	1,254.21	1/2	891.59	1/2	528.50	1/2	170.16	1/2		1/2			
3/4	2,335.96	3/4	1,972.85	3/4	1,609.75	3/4	1,246.65	3/4	884.03	3/4	520.94	3/4	162.61	3/4		3/4			
10	2,328.40	10	1,965.29	10	1,602.18	10	1,239.08	10	876.46	10	513.37	10	155.06	10	10	10			
1/4	2,320.83	1/4	1,957.73	1/4	1,594.62	1/4	1,231.52	1/4	868.90	1/4	505.81	1/4	147.51	1/4		1/4			
1/2	2,313.27	1/2	1,950.16	1/2	1,587.06	1/2	1,223.97	1/2	861.34	1/2	498.24	1/2	139.96	1/2		1/2			
3/4	2,305.70	3/4	1,942.60	3/4	1,579.49	3/4	1,216.41	3/4	853.77	3/4	490.68	3/4	132.41	3/4		3/4			
11	2,298.14	11	1,935.03	11	1,571.93	11	1,208.86	11	846.21	11	483.12	11	124.86	11	11	11			
1/4	2,290.57	1/4	1,927.47	1/4	1,564.36	1/4	1,201.31	1/4	838.64	1/4	475.55	1/4	117.31	1/4		1/4			
1/2	2,283.01	1/2	1,919.90	1/2	1,556.80	1/2	1,193.76	1/2	831.08	1/2	467.99	1/2	109.84	1/2		1/2			
3/4	2,275.44	3/4	1,912.34	3/4	1,549.23	3/4	1,186.20	3/4	823.51	3/4	460.42	3/4	102.37	3/4		3/4			

CERTIFIED CHART FOR THE ABOVE NAMED TANK ONLY

STRAPPED: 11/16/2018 SW
CALCULATED: 11/19/2018 CL
PRINTED: 11/20/2018

CANCELS AND SUPERCEDES
ALL PRIOR TO 11/20/18

PRECISION MEASUREMENT
& ANALYSIS, INC.

P.O. Box 2062
Pearland, Texas 77589
<http://www.pmacorp.net>



BARGE "EMS 510"

1 STBD ULLAGE TABLE

CAPACITIES GIVEN IN BARRELS OF 42 U.S. GALLONS

0 FT.			1 FT.			2 FT.			3 FT.			4 FT.			5 FT.			6 FT.			7 FT.			8 FT.			9 FT.		
IN			IN			IN			IN			IN			IN			IN			IN			IN			IN		
0		0	0		0	0		0	0		0	0		0	0		0	0		0		0	0		0		0		0
1/4		1/4	1/4		1/4	1/4		1/4	1/4		1/4	1/4		1/4	1/4		1/4	1/4		1/4		1/4	1/4		1/4		1/4		1/4
1/2		1/2	1/2		1/2	1/2		1/2	1/2		1/2	1/2		1/2	1/2		1/2	1/2		1/2		1/2	1/2		1/2		1/2		1/2
3/4		3/4	3/4		3/4	3/4		3/4	3/4		3/4	3/4		3/4	3/4		3/4	3/4		3/4		3/4	3/4		3/4		3/4		3/4
1		1	1		1	1		1	1		1	1		1	1		1	1		1		1	1		1		1		1
1/4		1/4	1/4		1/4	1/4		1/4	1/4		1/4	1/4		1/4	1/4		1/4	1/4		1/4		1/4	1/4		1/4		1/4		1/4
1/2		1/2	1/2		1/2	1/2		1/2	1/2		1/2	1/2		1/2	1/2		1/2	1/2		1/2		1/2	1/2		1/2		1/2		1/2
3/4		3/4	3/4		3/4	3/4		3/4	3/4		3/4	3/4		3/4	3/4		3/4	3/4		3/4		3/4	3/4		3/4		3/4		3/4
2		2	2		2	2		2	2		2	2		2	2		2	2		2		2	2		2		2		2
1/4		1/4	1/4		1/4	1/4		1/4	1/4		1/4	1/4		1/4	1/4		1/4	1/4		1/4		1/4	1/4		1/4		1/4		1/4
1/2		1/2	1/2		1/2	1/2		1/2	1/2		1/2	1/2		1/2	1/2		1/2	1/2		1/2		1/2	1/2		1/2		1/2		1/2
3/4		3/4	3/4		3/4	3/4		3/4	3/4		3/4	3/4		3/4	3/4		3/4	3/4		3/4		3/4	3/4		3/4		3/4		3/4
3		3	3		3	3		3	3		3	3		3	3		3	3		3		3	3		3		3		3
1/4		1/4	1/4		1/4	1/4		1/4	1/4		1/4	1/4		1/4	1/4		1/4	1/4		1/4		1/4	1/4		1/4		1/4		1/4
1/2		1/2	1/2		1/2	1/2		1/2	1/2		1/2	1/2		1/2	1/2		1/2	1/2		1/2		1/2	1/2		1/2		1/2		1/2
3/4		3/4	3/4		3/4	3/4		3/4	3/4		3/4	3/4		3/4	3/4		3/4	3/4		3/4		3/4	3/4		3/4		3/4		3/4
4		4	4		4	4		4	4		4	4		4	4		4	4		4		4	4		4		4		4
1/4		1/4	1/4		1/4	1/4		1/4	1/4		1/4	1/4		1/4	1/4		1/4	1/4		1/4		1/4	1/4		1/4		1/4		1/4
1/2		1/2	1/2		1/2	1/2		1/2	1/2		1/2	1/2		1/2	1/2		1/2	1/2		1/2		1/2	1/2		1/2		1/2		1/2
3/4		3/4	3/4		3/4	3/4		3/4	3/4		3/4	3/4		3/4	3/4		3/4	3/4		3/4		3/4	3/4		3/4		3/4		3/4
5		5	5		5	5		5	5		5	5		5	5		5	5		5		5	5		5		5		5
1/4		1/4	1/4		1/4	1/4		1/4	1/4		1/4	1/4		1/4	1/4		1/4	1/4		1/4		1/4	1/4		1/4		1/4		1/4
1/2		1/2	1/2		1/2	1/2		1/2	1/2		1/2	1/2		1/2	1/2		1/2	1/2		1/2		1/2	1/2		1/2		1/2		1/2
3/4		3/4	3/4		3/4	3/4		3/4	3/4		3/4	3/4		3/4	3/4		3/4	3/4		3/4		3/4	3/4		3/4		3/4		3/4
6		6	6		6	6		6	6		6	6		6	6		6	6		6		6	6		6		6		6
1/4		1/4	1/4		1/4	1/4		1/4	1/4		1/4	1/4		1/4	1/4		1/4	1/4		1/4		1/4	1/4		1/4		1/4		1/4
1/2		1/2	1/2		1/2	1/2		1/2	1/2		1/2	1/2		1/2	1/2		1/2	1/2		1/2		1/2	1/2		1/2		1/2		1/2
3/4		3/4	3/4		3/4	3/4		3/4	3/4		3/4	3/4		3/4	3/4		3/4	3/4		3/4		3/4	3/4		3/4		3/4		3/4
7		7	7		7	7		7	7		7	7		7	7		7	7		7		7	7		7		7		7
1/4		1/4	1/4		1/4	1/4		1/4	1/4		1/4	1/4		1/4	1/4		1/4	1/4		1/4		1/4	1/4		1/4		1/4		1/4
1/2		1/2	1/2		1/2	1/2		1/2	1/2		1/2	1/2		1/2	1/2		1/2	1/2		1/2		1/2	1/2		1/2		1/2		1/2
3/4		3/4	3/4		3/4	3/4		3/4	3/4		3/4	3/4		3/4	3/4		3/4	3/4		3/4		3/4	3/4		3/4		3/4		3/4
8		8	8		8	8		8	8		8	8		8	8		8	8		8		8	8		8		8		8
1/4		1/4	1/4		1/4	1/4		1/4	1/4		1/4	1/4		1/4	1/4		1/4	1/4		1/4		1/4	1/4		1/4		1/4		1/4
1/2		1/2	1/2		1/2	1/2		1/2	1/2		1/2	1/2		1/2	1/2		1/2	1/2		1/2		1/2	1/2		1/2		1/2		1/2
3/4		3/4	3/4		3/4	3/4		3/4	3/4		3/4	3/4		3/4	3/4		3/4	3/4		3/4		3/4	3/4		3/4		3/4		3/4
9		9	9		9	9		9	9		9	9		9	9		9	9		9		9	9		9		9		9
1/4		1/4	1/4		1/4	1/4		1/4	1/4		1/4	1/4		1/4	1/4		1/4	1/4		1/4		1/4	1/4		1/4		1/4		1/4
1/2		1/2	1/2		1/2	1/2		1/2	1/2		1/2	1/2		1/2	1/2		1/2	1/2		1/2		1/2	1/2		1/2		1/2		1/2
3/4		3/4	3/4		3/4	3/4		3/4	3/4		3/4	3/4		3/4	3/4		3/4	3/4		3/4		3/4	3/4		3/4		3/4		3/4
10		10	10		10	10		10	10		10	10		10	10		10	10		10		10	10		10		10		10
1/4		1/4	1/4		1/4	1/4		1/4	1/4		1/4	1/4		1/4	1/4		1/4	1/4		1/4		1/4	1/4		1/4		1/4		1/4
1/2		1/2	1/2		1/2	1/2		1/2	1/2		1/2	1/2		1/2	1/2		1/2	1/2		1/2		1/2	1/2		1/2		1/2		1/2
3/4		3/4	3/4		3/4	3/4		3/4	3/4		3/4	3/4		3/4	3/4		3/4	3/4		3/4		3/4	3/4		3/4		3/4		3/4
11		11	11		11	11		11	11		11	11		11	11		11	11		11		11	11		11		11		11
1/4		1/4	1/4		1/4	1/4		1/4	1/4		1/4	1/4		1/4	1/4		1/4	1/4		1/4		1/4	1/4		1/4		1/4		1/4
1/2		1/2	1/2		1/2	1/2		1/2	1/2		1/2	1/2		1/2	1/2		1/2	1/2		1/2		1/2	1/2		1/2		1/2		1/2
3/4		3/4	3/4		3/4	3/4		3/4	3/4		3/4	3/4		3/4	3/4		3/4	3/4		3/4		3/4	3/4		3/4		3/4		3/4
12		12	12		12	12		12	12		12	12		12	12		12	12		12		12	12		12		12		12

BARGE STRAPPED AND COMPUTED IN ACCORDANCE WITH MPMS CHAPTER 2.7.

CAPACITY TABLE ONLY APPLIES WHEN BARGE IS ON EVEN KEEL.

CAPACITY TABLE ONLY APPLIES TO ULLAGE GAUGES TAKEN WITH "HERMETIC CLOSED GAUGING DEVICE"

GAUGE POINT: (HERMETIC) LOCATED 10'-06" OFF CENTERLINE AND 55'-03" FORWARD OF AFT BULKHEAD.

CERTIFIED CHART FOR THE ABOVE NAMED TANK ONLY.

PRECISION MEASUREMENT
& ANALYSIS, INC.

P.O. Box 2092
Pearland, Texas 77588

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[Signature]



BARGE "EMS 510"

1 STBD ULLAGE TABLE

CAPACITIES GIVEN IN BARRELS OF 42 U.S. GALLONS

10 FT.		11 FT.		12 FT.		13 FT.		14 FT.		15 FT.		16 FT.		17 FT.		18 FT.		19 FT.	
IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT
0	2,632.37	0	2,688.81	0	1,905.25	0	1,541.69	0	1,178.67	0	816.96	0	453.42	0	95.01	0		0	
1/4	2,624.80	1/4	2,681.24	1/4	1,897.67	1/4	1,534.11	1/4	1,171.15	1/4	809.39	1/4	445.84	1/4	87.53	1/4		1/4	
1/2	2,617.22	1/2	2,673.66	1/2	1,890.10	1/2	1,526.54	1/2	1,163.63	1/2	801.81	1/2	438.29	1/2	80.76	1/2		1/2	
3/4	2,609.65	3/4	2,666.09	3/4	1,882.53	3/4	1,518.96	3/4	1,156.11	3/4	794.24	3/4	430.73	3/4	73.99	3/4		3/4	
1	2,602.08	1	2,658.51	1	1,874.95	1	1,511.39	1	1,148.58	1	786.67	1	423.18	1	67.22	1		1	
1/4	2,594.50	1/4	2,650.94	1/4	1,867.38	1/4	1,503.82	1/4	1,141.06	1/4	779.09	1/4	415.62	1/4	60.45	1/4		1/4	
1/2	2,586.93	1/2	2,643.37	1/2	1,859.80	1/2	1,496.24	1/2	1,133.54	1/2	771.52	1/2	408.19	1/2	54.94	1/2		1/2	
3/4	2,579.35	3/4	2,635.79	3/4	1,852.23	3/4	1,488.67	3/4	1,126.02	3/4	763.95	3/4	400.77	3/4	49.44	3/4		3/4	
2	2,571.78	2	2,628.22	2	1,844.66	2	1,481.09	2	1,118.49	2	756.37	2	393.34	2	43.93	2		2	
1/4	2,564.20	1/4	2,620.64	1/4	1,837.08	1/4	1,473.52	1/4	1,110.97	1/4	748.80	1/4	385.92	1/4	38.42	1/4		1/4	
1/2	2,556.63	1/2	2,613.07	1/2	1,829.51	1/2	1,465.95	1/2	1,103.45	1/2	741.22	1/2	378.49	1/2	34.18	1/2		1/2	
3/4	2,549.06	3/4	2,605.49	3/4	1,821.93	3/4	1,458.37	3/4	1,095.93	3/4	733.65	3/4	371.06	3/4	29.93	3/4		3/4	
3	2,541.48	3	2,597.92	3	1,814.36	3	1,450.80	3	1,088.40	3	726.08	3	363.64	3	25.69	3		3	
1/4	2,533.91	1/4	2,590.35	1/4	1,806.78	1/4	1,443.22	1/4	1,080.88	1/4	718.50	1/4	356.21	1/4	21.44	1/4		1/4	
1/2	2,526.33	1/2	2,582.77	1/2	1,799.21	1/2	1,435.65	1/2	1,073.36	1/2	710.93	1/2	348.79	1/2	17.19	1/2		1/2	
3/4	2,518.76	3/4	2,575.20	3/4	1,791.64	3/4	1,428.07	3/4	1,065.84	3/4	703.35	3/4	341.36	3/4	12.94	3/4		3/4	
4	2,511.18	4	2,567.62	4	1,784.06	4	1,420.50	4	1,058.32	4	695.78	4	333.93	4	8.69	4		4	
1/4	2,503.61	1/4	2,550.05	1/4	1,776.49	1/4	1,412.93	1/4	1,050.79	1/4	688.21	1/4	326.51	1/4	4.44	1/4		1/4	
1/2	2,496.04	1/2	2,542.47	1/2	1,768.91	1/2	1,405.35	1/2	1,043.27	1/2	680.63	1/2	319.08	1/2	0.19	1/2		1/2	
3/4	2,488.46	3/4	2,534.90	3/4	1,761.34	3/4	1,397.78	3/4	1,035.75	3/4	673.06	3/4	311.66	3/4	0.00	3/4		3/4	
5	2,480.89	5	2,527.33	5	1,753.76	5	1,390.20	5	1,028.23	5	665.48	5	304.23	5	0.00	5		5	
1/4	2,473.31	1/4	2,519.75	1/4	1,746.19	1/4	1,382.63	1/4	1,020.70	1/4	657.91	1/4	296.81	1/4	0.00	1/4		1/4	
1/2	2,465.74	1/2	2,512.18	1/2	1,738.62	1/2	1,375.05	1/2	1,013.18	1/2	650.34	1/2	289.38	1/2	0.00	1/2		1/2	
3/4	2,458.17	3/4	2,504.60	3/4	1,731.04	3/4	1,367.47	3/4	1,005.66	3/4	642.76	3/4	281.95	3/4	0.00	3/4		3/4	
6	2,450.59	6	2,497.03	6	1,723.47	6	1,359.91	6	998.14	6	635.19	6	274.53	6	0.00	6		6	
1/4	2,443.02	1/4	2,489.46	1/4	1,715.89	1/4	1,352.33	1/4	990.61	1/4	627.61	1/4	267.10	1/4	0.00	1/4		1/4	
1/2	2,435.44	1/2	2,481.88	1/2	1,708.32	1/2	1,344.76	1/2	983.09	1/2	620.09	1/2	259.68	1/2	0.00	1/2		1/2	
3/4	2,427.87	3/4	2,474.31	3/4	1,700.75	3/4	1,337.18	3/4	975.57	3/4	612.47	3/4	252.25	3/4	0.00	3/4		3/4	
7	2,420.29	7	2,466.73	7	1,693.17	7	1,329.61	7	968.05	7	604.89	7	244.82	7	0.00	7		7	
1/4	2,412.72	1/4	2,459.16	1/4	1,685.60	1/4	1,322.04	1/4	960.53	1/4	597.32	1/4	237.40	1/4	0.00	1/4		1/4	
1/2	2,405.15	1/2	2,451.59	1/2	1,678.02	1/2	1,314.46	1/2	953.00	1/2	589.75	1/2	229.97	1/2	0.00	1/2		1/2	
3/4	2,397.57	3/4	2,444.01	3/4	1,670.45	3/4	1,306.89	3/4	945.48	3/4	582.17	3/4	222.55	3/4	0.00	3/4		3/4	
8	2,390.00	8	2,436.44	8	1,662.87	8	1,299.31	8	937.95	8	574.60	8	215.12	8	0.00	8		8	
1/4	2,382.42	1/4	2,428.86	1/4	1,655.30	1/4	1,291.74	1/4	930.43	1/4	567.02	1/4	207.69	1/4	0.00	1/4		1/4	
1/2	2,374.85	1/2	2,421.29	1/2	1,647.73	1/2	1,284.17	1/2	922.89	1/2	559.45	1/2	200.25	1/2	0.00	1/2		1/2	
3/4	2,367.27	3/4	2,413.71	3/4	1,640.15	3/4	1,276.60	3/4	915.35	3/4	551.88	3/4	192.81	3/4	0.00	3/4		3/4	
9	2,359.70	9	2,406.14	9	1,632.58	9	1,269.03	9	907.81	9	544.30	9	185.37	9	0.00	9		9	
1/4	2,352.13	1/4	2,400.56	1/4	1,625.00	1/4	1,261.46	1/4	900.28	1/4	536.73	1/4	177.92	1/4	0.00	1/4		1/4	
1/2	2,344.55	1/2	2,392.99	1/2	1,617.43	1/2	1,253.93	1/2	892.70	1/2	529.15	1/2	170.37	1/2	0.00	1/2		1/2	
3/4	2,336.98	3/4	2,385.42	3/4	1,609.85	3/4	1,246.39	3/4	885.13	3/4	521.58	3/4	162.81	3/4	0.00	3/4		3/4	
10	2,329.40	10	2,377.84	10	1,602.28	10	1,238.86	10	877.55	10	514.01	10	155.25	10	0.00	10		10	
1/4	2,321.83	1/4	2,370.27	1/4	1,594.71	1/4	1,231.33	1/4	869.98	1/4	506.43	1/4	147.69	1/4	0.00	1/4		1/4	
1/2	2,314.26	1/2	2,362.70	1/2	1,587.13	1/2	1,223.81	1/2	862.41	1/2	498.86	1/2	140.13	1/2	0.00	1/2		1/2	
3/4	2,306.68	3/4	2,355.12	3/4	1,579.56	3/4	1,216.28	3/4	854.83	3/4	491.28	3/4	132.57	3/4	0.00	3/4		3/4	
11	2,299.11	11	2,347.55	11	1,571.98	11	1,208.76	11	847.26	11	483.71	11	125.01	11	0.00	11		11	
1/4	2,291.53	1/4	2,339.97	1/4	1,564.41	1/4	1,201.24	1/4	839.68	1/4	476.14	1/4	117.45	1/4	0.00	1/4		1/4	
1/2	2,283.96	1/2	2,332.40	1/2	1,556.84	1/2	1,193.72	1/2	832.11	1/2	468.56	1/2	109.97	1/2	0.00	1/2		1/2	
3/4	2,276.38	3/4	2,324.82	3/4	1,549.26	3/4	1,186.19	3/4	824.54	3/4	460.99	3/4	102.49	3/4	0.00	3/4		3/4	

STRAPPED: 11/16/2018 SW
CALCULATED: 11/19/2018 CL
PRINTED: 11/20/2018

CANCELS AND SUPERCEDES
ALL PRIOR TO 11/20/18

CERTIFIED CHART FOR THE ABOVE NAMED TANK ONLY.

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& ANALYSIS, INC.

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2 PORT
CULLAGE TABLE

CAPACITIES GIVEN IN BARRELS OF 42 U.S. GALLONS

[illegible]

CERTIFIED CHART FOR THE ABOVE NAMED TANK ONLY.

BARGE STRAPPED AND COMPUTED IN ACCORDANCE WITH MPMS CHAPTER 2.7.

**CAPACITY TABLE ONLY APPLIES WHEN BARGE IS ON EVEN KEEL.
CAPACITY TABLE EXTENDS TO EXTREME HEIGHT OF TANK.**

STABILITY TABLE EXTENDS TO MAXIMUM HEIGHT OF TANK.

PRECISION MEASUREMENT

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P.O. Box 2092

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SHEET NO. 5 OF 12



BARGE "EMS 510"

2 PORT ULLAGE TABLE

CAPACITIES GIVEN IN BARRELS OF 42 U.S. GALLONS

10 FT.		11 FT.		12 FT.		13 FT.		14 FT.		15 FT.		16 FT.		17 FT.		18 FT.		19 FT.	
IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT
0	2,612.72	0	2,251.09	0	1,889.46	0	1,527.83	0	1,166.31	0	805.07	0	443.46	0	87.07	0		0	
1/4	2,605.18	1/4	2,243.55	1/4	1,881.93	1/4	1,520.30	1/4	1,158.79	1/4	797.54	1/4	435.95	1/4	80.34	1/4		1/4	
1/2	2,597.65	1/2	2,236.02	1/2	1,874.39	1/2	1,512.77	1/2	1,151.27	1/2	790.01	1/2	428.43	1/2	73.60	1/2		1/2	
3/4	2,590.11	3/4	2,228.49	3/4	1,866.86	3/4	1,505.23	3/4	1,143.75	3/4	782.47	3/4	420.92	3/4	66.87	3/4		3/4	
1	2,582.58	1	2,220.95	1	1,859.33	1	1,497.70	1	1,136.23	1	774.94	1	413.40	1	60.14	1		1	
1/4	2,575.05	1/4	2,213.42	1/4	1,851.79	1/4	1,490.16	1/4	1,128.70	1/4	767.41	1/4	406.02	1/4	54.66	1/4		1/4	
1/2	2,567.51	1/2	2,205.88	1/2	1,844.26	1/2	1,482.63	1/2	1,121.18	1/2	759.83	1/2	398.63	1/2	49.18	1/2		1/2	
3/4	2,559.98	3/4	2,198.35	3/4	1,836.72	3/4	1,475.10	3/4	1,113.66	3/4	752.34	3/4	391.24	3/4	43.70	3/4		3/4	
2	2,552.44	2	2,190.82	2	1,829.19	2	1,467.56	2	1,106.14	2	744.81	2	383.86	2	38.23	2		2	
1/4	2,544.91	1/4	2,183.28	1/4	1,821.66	1/4	1,460.03	1/4	1,098.62	1/4	737.27	1/4	376.47	1/4	34.00	1/4		1/4	
1/2	2,537.38	1/2	2,175.75	1/2	1,814.12	1/2	1,452.49	1/2	1,091.10	1/2	729.74	1/2	369.09	1/2	29.78	1/2		1/2	
3/4	2,529.84	3/4	2,168.22	3/4	1,806.59	3/4	1,444.96	3/4	1,083.57	3/4	722.21	3/4	361.70	3/4	25.55	3/4		3/4	
3	2,522.31	3	2,160.68	3	1,799.05	3	1,437.43	3	1,076.05	3	714.67	3	354.31	3	21.33	3		3	
1/4	2,514.77	1/4	2,153.15	1/4	1,791.52	1/4	1,429.89	1/4	1,068.53	1/4	707.14	1/4	346.93	1/4		1/4		1/4	
1/2	2,507.24	1/2	2,145.61	1/2	1,783.99	1/2	1,422.36	1/2	1,061.01	1/2	699.60	1/2	339.54	1/2		1/2		1/2	
3/4	2,499.71	3/4	2,138.08	3/4	1,776.45	3/4	1,414.83	3/4	1,053.49	3/4	692.07	3/4	332.16	3/4		3/4		3/4	
4	2,492.17	4	2,130.55	4	1,768.92	4	1,407.29	4	1,045.97	4	684.54	4	324.77	4	4	4		4	
1/4	2,484.64	1/4	2,123.01	1/4	1,761.38	1/4	1,399.76	1/4	1,038.44	1/4	677.00	1/4	317.38	1/4		1/4		1/4	
1/2	2,477.11	1/2	2,115.48	1/2	1,753.85	1/2	1,392.22	1/2	1,030.92	1/2	669.47	1/2	310.00	1/2		1/2		1/2	
3/4	2,469.57	3/4	2,107.94	3/4	1,746.32	3/4	1,384.69	3/4	1,023.40	3/4	661.94	3/4	302.61	3/4		3/4		3/4	
5	2,462.04	5	2,100.41	5	1,738.78	5	1,377.16	5	1,015.88	5	654.40	5	295.23	5		5		5	
1/4	2,454.50	1/4	2,092.88	1/4	1,731.25	1/4	1,369.62	1/4	1,008.36	1/4	646.87	1/4	287.84	1/4		1/4		1/4	
1/2	2,446.97	1/2	2,085.34	1/2	1,723.72	1/2	1,362.09	1/2	1,000.84	1/2	639.34	1/2	280.45	1/2		1/2		1/2	
3/4	2,439.44	3/4	2,077.81	3/4	1,716.18	3/4	1,354.55	3/4	993.31	3/4	631.80	3/4	273.07	3/4		3/4		3/4	
6	2,431.90	6	2,070.27	6	1,708.65	6	1,347.02	6	985.79	6	624.27	6	265.68	6		6		6	
1/4	2,424.37	1/4	2,062.74	1/4	1,701.11	1/4	1,339.49	1/4	978.27	1/4	616.73	1/4	258.30	1/4		1/4		1/4	
1/2	2,416.83	1/2	2,055.21	1/2	1,693.58	1/2	1,331.95	1/2	970.75	1/2	609.20	1/2	250.91	1/2		1/2		1/2	
3/4	2,409.30	3/4	2,047.67	3/4	1,686.05	3/4	1,324.42	3/4	963.23	3/4	601.67	3/4	243.52	3/4		3/4		3/4	
7	2,401.77	7	2,040.14	7	1,678.51	7	1,316.88	7	955.70	7	594.13	7	236.14	7		7		7	
1/4	2,394.23	1/4	2,032.60	1/4	1,670.98	1/4	1,309.35	1/4	948.18	1/4	586.60	1/4	228.75	1/4		1/4		1/4	
1/2	2,386.70	1/2	2,025.07	1/2	1,663.44	1/2	1,301.82	1/2	940.66	1/2	579.07	1/2	221.37	1/2		1/2		1/2	
3/4	2,379.16	3/4	2,017.54	3/4	1,655.91	3/4	1,294.28	3/4	933.14	3/4	571.53	3/4	213.98	3/4		3/4		3/4	
8	2,371.63	8	2,010.00	8	1,648.38	8	1,286.75	8	925.61	8	564.00	8	206.59	8		8		8	
1/4	2,364.10	1/4	2,002.47	1/4	1,640.84	1/4	1,279.21	1/4	918.08	1/4	556.47	1/4	199.19	1/4		1/4		1/4	
1/2	2,356.56	1/2	1,994.94	1/2	1,633.31	1/2	1,271.68	1/2	910.55	1/2	548.93	1/2	191.79	1/2		1/2		1/2	
3/4	2,349.03	3/4	1,987.40	3/4	1,625.77	3/4	1,264.15	3/4	903.01	3/4	541.40	3/4	184.39	3/4		3/4		3/4	
9	2,341.49	9	1,979.87	9	1,618.24	9	1,256.61	9	895.48	9	533.87	9	176.98	9		9		9	
1/4	2,333.96	1/4	1,972.33	1/4	1,610.71	1/4	1,249.08	1/4	887.94	1/4	526.33	1/4	169.46	1/4		1/4		1/4	
1/2	2,326.43	1/2	1,964.80	1/2	1,603.17	1/2	1,241.55	1/2	880.41	1/2	518.80	1/2	161.95	1/2		1/2		1/2	
3/4	2,318.89	3/4	1,957.27	3/4	1,595.64	3/4	1,234.02	3/4	872.88	3/4	511.26	3/4	154.43	3/4		3/4		3/4	
10	2,311.36	10	1,949.73	10	1,588.10	10	1,226.49	10	865.34	10	503.73	10	146.91	10		10		10	
1/4	2,303.83	1/4	1,942.20	1/4	1,580.57	1/4	1,218.96	1/4	857.81	1/4	496.20	1/4	139.39	1/4		1/4		1/4	
1/2	2,296.29	1/2	1,934.66	1/2	1,573.04	1/2	1,211.44	1/2	850.28	1/2	488.66	1/2	131.87	1/2		1/2		1/2	
3/4	2,288.76	3/4	1,927.13	3/4	1,565.50	3/4	1,203.92	3/4	842.74	3/4	481.13	3/4	124.35	3/4		3/4		3/4	
11	2,281.22	11	1,919.60	11	1,557.97	11	1,196.40	11	835.21	11	473.60	11	116.83	11		11		11	
1/4	2,273.69	1/4	1,912.06	1/4	1,550.44	1/4	1,188.88	1/4	827.68	1/4	466.06	1/4	109.39	1/4		1/4		1/4	
1/2	2,266.16	1/2	1,904.53	1/2	1,542.90	1/2	1,181.36	1/2	820.14	1/2	458.53	1/2	101.95	1/2		1/2		1/2	
3/4	2,258.62	3/4	1,896.99	3/4	1,535.37	3/4	1,173.83	3/4	812.61	3/4	451.00	3/4	94.51	3/4		3/4		3/4	

CERTIFIED CHART FOR THE ABOVE NAMED TANK ONLY.

STRAPPED: 11/16/2018 SW
CALCULATED: 11/19/2018 CL
PRINTED: 11/20/2018

CANCELS AND SUPERCEDES
ALL PRIOR TO 11/2018

PRECISION MEASUREMENT
& ANALYSIS, INC.
P.O. Box 2092
Pearland, Texas 77588
<http://www.pmacorp.net>



BARGE "EMS 510"

2 STBD ULLAGE TABLE

CAPACITIES GIVEN IN BARRELS OF 42 U.S. GALLONS

0 FT.		1 FT.		2 FT.		3 FT.		4 FT.		5 FT.		6 FT.		7 FT.		8 FT.		9 FT.	
IN	0 FT.	IN	1 FT.	IN	2 FT.	IN	3 FT.	IN	4 FT.	IN	5 FT.	IN	6 FT.	IN	7 FT.	IN	8 FT.	IN	9 FT.
0		0		0		0	5,082.83	0	4,748.08	0	4,405.07	0	4,045.66	0	3,683.76	0	3,321.86	0	2,959.96
1/4		1/4		1/4		1/4	5,075.39	1/4	4,741.13	1/4	4,397.71	1/4	4,038.12	1/4	3,676.22	1/4	3,314.32	1/4	2,952.42
1/2		1/2		1/2		1/2	5,067.95	1/2	4,734.19	1/2	4,390.35	1/2	4,030.58	1/2	3,668.68	1/2	3,306.78	1/2	2,944.88
3/4		3/4		3/4		3/4	5,060.51	3/4	4,727.24	3/4	4,382.99	3/4	4,023.05	3/4	3,661.14	3/4	3,299.24	3/4	2,937.34
1		1		1		1	5,053.07	1	4,720.29	1	4,375.64	1	4,015.51	1	3,653.60	1	3,291.70	1	2,929.80
1/4		1/4		1/4		1/4	5,045.63	1/4	4,713.31	1/4	4,368.25	1/4	4,007.97	1/4	3,646.07	1/4	3,284.16	1/4	2,922.26
1/2		1/2		1/2		1/2	5,038.19	1/2	4,706.33	1/2	4,360.86	1/2	4,000.43	1/2	3,638.53	1/2	3,276.62	1/2	2,914.72
3/4		3/4		3/4		3/4	5,030.75	3/4	4,699.35	3/4	4,353.47	3/4	3,992.89	3/4	3,630.99	3/4	3,269.09	3/4	2,907.18
2		2		2		2	5,023.30	2	4,692.37	2	4,346.08	2	3,985.35	2	3,623.45	2	3,261.55	2	2,899.64
1/4		1/4		1/4		1/4	5,015.92	1/4	4,685.33	1/4	4,338.66	1/4	3,977.81	1/4	3,615.91	1/4	3,254.01	1/4	2,892.11
1/2		1/2		1/2		1/2	5,008.53	1/2	4,678.29	1/2	4,331.24	1/2	3,970.27	1/2	3,608.37	1/2	3,246.47	1/2	2,884.57
3/4		3/4		3/4		3/4	5,001.14	3/4	4,671.25	3/4	4,323.82	3/4	3,962.73	3/4	3,600.83	3/4	3,238.93	3/4	2,877.03
3		3		3		3	4,993.75	3	4,664.21	3	4,316.40	3	3,955.19	3	3,593.29	3	3,231.39	3	2,869.49
1/4		1/4		1/4		1/4	4,986.77	1/4	4,657.14	1/4	4,308.95	1/4	3,947.65	1/4	3,585.75	1/4	3,223.85	1/4	2,861.95
1/2		1/2		1/2		1/2	4,979.79	1/2	4,650.06	1/2	4,301.50	1/2	3,940.11	1/2	3,578.21	1/2	3,216.31	1/2	2,854.41
3/4		3/4		3/4		3/4	4,972.81	3/4	4,642.99	3/4	4,294.05	3/4	3,932.57	3/4	3,570.67	3/4	3,208.77	3/4	2,846.87
4		4		4		4	4,965.83	4	4,635.92	4	4,286.60	4	3,925.03	4	3,563.13	4	3,201.23	4	2,839.33
1/4		1/4		1/4		1/4	4,959.13	1/4	4,628.81	1/4	4,279.12	1/4	3,917.49	1/4	3,555.59	1/4	3,193.69	1/4	2,831.79
1/2		1/2		1/2		1/2	4,952.44	1/2	4,621.71	1/2	4,271.63	1/2	3,909.95	1/2	3,548.05	1/2	3,186.15	1/2	2,824.25
3/4		3/4		3/4		3/4	4,945.75	3/4	4,614.61	3/4	4,264.15	3/4	3,902.41	3/4	3,540.51	3/4	3,178.61	3/4	2,816.71
5		5		5		5	4,939.05	5	4,607.50	5	4,256.66	5	3,894.87	5	3,532.97	5	3,171.07	5	2,809.17
1/4		1/4		1/4		1/4	4,932.32	1/4	4,600.37	1/4	4,249.15	1/4	3,887.33	1/4	3,525.43	1/4	3,163.53	1/4	2,801.63
1/2		1/2		1/2		1/2	4,925.60	1/2	4,593.23	1/2	4,241.63	1/2	3,879.79	1/2	3,517.89	1/2	3,155.99	1/2	2,794.09
3/4		3/4		3/4		3/4	4,918.87	3/4	4,586.10	3/4	4,234.12	3/4	3,872.25	3/4	3,510.35	3/4	3,148.45	3/4	2,786.55
6		6		6		6	4,912.14	6	4,578.97	6	4,226.60	6	3,864.71	6	3,502.81	6	3,140.91	6	2,779.01
1/4		1/4		1/4		1/4	4,905.38	1/4	4,571.80	1/4	4,219.06	1/4	3,857.17	1/4	3,495.27	1/4	3,133.37	1/4	2,771.48
1/2		1/2		1/2		1/2	4,898.62	1/2	4,564.64	1/2	4,211.53	1/2	3,849.63	1/2	3,487.73	1/2	3,125.83	1/2	2,763.96
3/4		3/4		3/4		3/4	4,891.87	3/4	4,557.47	3/4	4,203.99	3/4	3,842.09	3/4	3,480.19	3/4	3,118.29	3/4	2,756.43
7		7		7		7	4,885.11	7	4,550.31	7	4,196.46	7	3,834.56	7	3,472.65	7	3,110.75	7	2,748.91
1/4		1/4		1/4		1/4	4,878.32	1/4	4,543.11	1/4	4,188.92	1/4	3,827.02	1/4	3,465.11	1/4	3,103.21	1/4	2,741.47
1/2		1/2		1/2		1/2	4,871.53	1/2	4,535.91	1/2	4,181.38	1/2	3,819.48	1/2	3,457.58	1/2	3,095.67	1/2	2,734.04
3/4		3/4		3/4		3/4	4,864.74	3/4	4,528.72	3/4	4,173.84	3/4	3,811.94	3/4	3,450.04	3/4	3,088.13	3/4	2,726.61
8		8		8		8	4,857.95	8	4,521.52	8	4,166.30	8	3,804.40	8	3,442.50	8	3,080.60	8	2,719.17
1/4		1/4		1/4		1/4	4,851.13	1/4	4,514.29	1/4	4,158.76	1/4	3,796.86	1/4	3,434.96	1/4	3,073.06	1/4	2,711.74
1/2		1/2		1/2		1/2	4,844.32	1/2	4,507.05	1/2	4,151.22	1/2	3,789.32	1/2	3,427.42	1/2	3,065.52	1/2	2,704.31
3/4		3/4		3/4		3/4	4,837.50	3/4	4,499.82	3/4	4,143.68	3/4	3,781.78	3/4	3,419.88	3/4	3,057.98	3/4	2,696.87
9		9		9		9	4,830.68	9	4,492.59	9	4,136.14	9	3,774.24	9	3,412.34	9	3,050.44	9	2,689.44
1/4		1/4		1/4		1/4	4,823.83	1/4	4,485.33	1/4	4,128.60	1/4	3,766.70	1/4	3,404.80	1/4	3,042.90	1/4	2,682.01
1/2		1/2		1/2		1/2	4,816.98	1/2	4,478.07	1/2	4,121.06	1/2	3,759.16	1/2	3,397.26	1/2	3,035.36	1/2	2,674.57
3/4		3/4		3/4		3/4	4,810.13	3/4	4,470.81	3/4	4,113.52	3/4	3,751.62	3/4	3,389.72	3/4	3,027.82	3/4	2,667.14
10		10		10		10	4,803.28	10	4,463.55	10	4,105.98	10	3,744.08	10	3,382.18	10	3,020.28	10	2,659.71
1/4		1/4		1/4		1/4	4,796.40	1/4	4,456.25	1/4	4,098.44	1/4	3,736.54	1/4	3,374.64	1/4	3,012.74	1/4	2,652.26
1/2		1/2		1/2		1/2	4,789.51	1/2	4,448.96	1/2	4,090.90	1/2	3,729.00	1/2	3,367.10	1/2	3,005.20	1/2	2,644.82
3/4		3/4		3/4		3/4	4,782.63	3/4	4,441.67	3/4	4,083.36	3/4	3,721.46	3/4	3,359.56	3/4	2,997.66	3/4	2,637.37
11		11		11		11	4,775.75	11	4,434.38	11	4,075.82	11	3,713.92	11	3,352.02	11	2,990.12	11	2,629.92
1/4		1/4		1/4		1/4	4,768.83	1/4	4,427.05	1/4	4,068.28	1/4	3,706.38	1/4	3,344.48	1/4	2,982.58	1/4	2,622.38
1/2		1/2		1/2		1/2	4,761.91	1/2	4,419.73	1/2	4,060.74	1/2	3,698.84	1/2	3,336.94	1/2	2,975.04	1/2	2,614.84
3/4		3/4		3/4		3/4	4,755.00	3/4	4,412.40	3/4	4,053.20	3/4	3,691.30	3/4	3,329.40	3/4	2,967.50	3/4	2,607.30

BARGE STRAPPED AND COMPUTED IN ACCORDANCE WITH MPMS CHAPTER 2.7.

CAPACITY TABLE ONLY APPLIES WHEN BARGE IS ON EVEN KEEL.

CAPACITY TABLE ONLY APPLIES TO ULLAGE GAUGES TAKEN WITH "HERMETIC CLOSED GAUGING DEVICE"

GAUGE POINT: (HERMETIC) LOCATED 10'-08" OFF CENTERLINE AND 42'-03" FORWARD OF AFT BULKHEAD.

CERTIFIED CHART FOR THE ABOVE NAMED TANK ONLY.

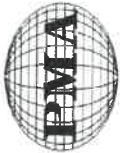
PRECISION MEASUREMENT

& ANALYSIS, INC.

P.O. Box 2092

Pearland, Texas 77568

<http://www.pmacorp.net>



BARGE "EMS 510"

2 STBD ULLAGE TABLE

CAPACITIES GIVEN IN BARRELS OF 42 U.S. GALLONS

10 FT.		11 FT.		12 FT.		13 FT.		14 FT.		15 FT.		16 FT.		17 FT.		18 FT.		19 FT.	
IN	0	IN	0	IN	0	IN	0	IN	0	IN	0	IN	0	IN	0	IN	0	IN	0
0	2,599.76	0	2,237.73	0	1,875.69	0	1,513.66	0	1,151.67	0	805.98	0	443.96	0	87.17	0			
1/4	2,592.22	1/4	2,230.18	1/4	1,868.15	1/4	1,506.11	1/4	1,144.67	1/4	798.44	1/4	436.44	1/4	80.43	1/4			
1/2	2,584.68	1/2	2,222.64	1/2	1,860.61	1/2	1,498.57	1/2	1,141.47	1/2	790.90	1/2	428.92	1/2	73.69	1/2			
3/4	2,577.14	3/4	2,215.10	3/4	1,853.06	3/4	1,491.03	3/4	1,134.27	3/4	783.36	3/4	421.39	3/4	66.95	3/4			
1	2,569.59	1	2,207.56	1	1,845.52	1	1,483.49	1	1,127.07	1	775.82	1	413.87	1	60.20	1			
1 1/4	2,562.05	1 1/4	2,200.02	1 1/4	1,837.98	1 1/4	1,475.94	1 1/4	1,119.87	1 1/4	768.27	1 1/4	406.48	1 1/4	54.72	1 1/4			
1 1/2	2,554.51	1 1/2	2,192.47	1 1/2	1,830.44	1 1/2	1,468.40	1 1/2	1,112.67	1 1/2	760.73	1 1/2	399.08	1 1/2	49.24	1 1/2			
3/4	2,546.97	3/4	2,184.93	3/4	1,822.90	3/4	1,460.86	3/4	1,105.48	3/4	753.19	3/4	391.59	3/4	43.75	3/4			
2	2,539.42	2	2,177.39	2	1,815.35	2	1,453.32	2	1,097.28	2	745.65	2	384.29	2	38.27	2			
2 1/4	2,531.88	2 1/4	2,169.85	2 1/4	1,807.81	2 1/4	1,445.78	2 1/4	1,090.18	2 1/4	738.11	2 1/4	376.90	2 1/4	34.04	2 1/4			
1 1/2	2,524.34	1 1/2	2,162.30	1 1/2	1,800.27	1 1/2	1,438.23	1 1/2	1,083.88	1 1/2	730.56	1 1/2	369.50	1 1/2	29.81	1 1/2			
3/4	2,516.80	3/4	2,154.76	3/4	1,792.73	3/4	1,430.69	3/4	1,076.68	3/4	723.02	3/4	362.11	3/4	25.58	3/4			
3	2,509.25	3	2,147.22	3	1,785.18	3	1,423.15	3	1,069.48	3	715.48	3	354.71	3	21.35	3			
1 1/4	2,501.71	1 1/4	2,139.68	1 1/4	1,777.64	1 1/4	1,415.61	1 1/4	1,062.28	1 1/4	707.94	1 1/4	347.32	1 1/4		1 1/4			
1 1/2	2,494.17	1 1/2	2,132.13	1 1/2	1,770.10	1 1/2	1,408.06	1 1/2	1,055.08	1 1/2	700.40	1 1/2	339.83	1 1/2		1 1/2			
3/4	2,486.63	3/4	2,124.59	3/4	1,762.56	3/4	1,400.52	3/4	1,047.88	3/4	692.85	3/4	332.53	3/4		3/4			
4	2,479.08	4	2,117.05	4	1,755.01	4	1,392.98	4	1,040.69	4	685.31	4	325.14	4		4			
1 1/4	2,471.54	1 1/4	2,109.51	1 1/4	1,747.47	1 1/4	1,385.44	1 1/4	1,033.49	1 1/4	677.77	1 1/4	317.74	1 1/4		1 1/4			
1 1/2	2,464.00	1 1/2	2,101.96	1 1/2	1,739.93	1 1/2	1,377.89	1 1/2	1,026.29	1 1/2	670.23	1 1/2	310.35	1 1/2		1 1/2			
3/4	2,456.46	3/4	2,094.42	3/4	1,732.39	3/4	1,370.35	3/4	1,019.09	3/4	662.68	3/4	302.95	3/4		3/4			
5	2,448.91	5	2,086.88	5	1,724.84	5	1,362.81	5	1,011.89	5	655.14	5	295.56	5		5			
1 1/4	2,441.37	1 1/4	2,079.34	1 1/4	1,717.30	1 1/4	1,355.27	1 1/4	1,004.69	1 1/4	647.60	1 1/4	288.17	1 1/4		1 1/4			
1 1/2	2,433.83	1 1/2	2,071.79	1 1/2	1,709.76	1 1/2	1,347.72	1 1/2	997.49	1 1/2	640.06	1 1/2	280.77	1 1/2		1 1/2			
3/4	2,426.29	3/4	2,064.25	3/4	1,702.22	3/4	1,340.18	3/4	990.29	3/4	632.52	3/4	273.38	3/4		3/4			
6	2,418.74	6	2,056.71	6	1,694.67	6	1,332.64	6	983.10	6	624.97	6	265.98	6		6			
1 1/4	2,411.20	1 1/4	2,049.17	1 1/4	1,687.13	1 1/4	1,325.10	1 1/4	975.90	1 1/4	617.43	1 1/4	259.59	1 1/4		1 1/4			
1 1/2	2,403.66	1 1/2	2,041.62	1 1/2	1,679.59	1 1/2	1,317.55	1 1/2	968.70	1 1/2	609.89	1 1/2	251.19	1 1/2		1 1/2			
3/4	2,396.12	3/4	2,034.08	3/4	1,672.05	3/4	1,310.01	3/4	961.50	3/4	602.35	3/4	243.80	3/4		3/4			
7	2,388.58	7	2,026.54	7	1,664.50	7	1,302.47	7	954.30	7	594.81	7	236.40	7		7			
1 1/4	2,381.03	1 1/4	2,019.00	1 1/4	1,656.96	1 1/4	1,294.93	1 1/4	947.10	1 1/4	587.26	1 1/4	229.01	1 1/4		1 1/4			
1 1/2	2,373.49	1 1/2	2,011.46	1 1/2	1,649.42	1 1/2	1,287.38	1 1/2	939.90	1 1/2	579.72	1 1/2	221.62	1 1/2		1 1/2			
3/4	2,365.95	3/4	2,003.91	3/4	1,641.88	3/4	1,279.84	3/4	932.70	3/4	572.18	3/4	214.22	3/4		3/4			
8	2,358.41	8	1,996.37	8	1,634.34	8	1,272.30	8	925.50	8	564.64	8	206.83	8		8			
1 1/4	2,350.86	1 1/4	1,988.83	1 1/4	1,626.79	1 1/4	1,264.80	1 1/4	918.25	1 1/4	557.10	1 1/4	199.42	1 1/4		1 1/4			
1 1/2	2,343.32	1 1/2	1,981.29	1 1/2	1,619.25	1 1/2	1,257.30	1 1/2	910.99	1 1/2	549.55	1 1/2	192.00	1 1/2		1 1/2			
3/4	2,335.78	3/4	1,973.74	3/4	1,611.71	3/4	1,249.80	3/4	903.74	3/4	542.01	3/4	184.59	3/4		3/4			
9	2,328.24	9	1,966.20	9	1,604.17	9	1,242.30	9	896.49	9	534.47	9	177.18	9		9			
1 1/4	2,320.69	1 1/4	1,958.66	1 1/4	1,596.62	1 1/4	1,235.09	1 1/4	888.95	1 1/4	526.93	1 1/4	169.66	1 1/4		1 1/4			
1 1/2	2,313.15	1 1/2	1,951.12	1 1/2	1,589.08	1 1/2	1,227.88	1 1/2	881.41	1 1/2	519.38	1 1/2	162.13	1 1/2		1 1/2			
3/4	2,305.61	3/4	1,943.57	3/4	1,581.54	3/4	1,220.67	3/4	873.86	3/4	511.84	3/4	154.60	3/4		3/4			
10	2,298.07	10	1,936.03	10	1,574.00	10	1,213.46	10	866.32	10	504.30	10	147.07	10		10			
1 1/4	2,290.52	1 1/4	1,928.49	1 1/4	1,566.45	1 1/4	1,206.26	1 1/4	858.78	1 1/4	496.76	1 1/4	139.55	1 1/4		1 1/4			
1 1/2	2,282.98	1 1/2	1,920.95	1 1/2	1,558.91	1 1/2	1,199.06	1 1/2	851.24	1 1/2	489.22	1 1/2	132.02	1 1/2		1 1/2			
3/4	2,275.44	3/4	1,913.40	3/4	1,551.37	3/4	1,191.86	3/4	843.70	3/4	481.67	3/4	124.49	3/4		3/4			
11	2,267.90	11	1,905.86	11	1,543.83	11	1,184.66	11	836.15	11	474.13	11	116.96	11		11			
1 1/4	2,260.35	1 1/4	1,898.32	1 1/4	1,536.28	1 1/4	1,177.46	1 1/4	828.61	1 1/4	466.59	1 1/4	109.52	1 1/4		1 1/4			
1 1/2	2,252.81	1 1/2	1,890.78	1 1/2	1,528.74	1 1/2	1,170.26	1 1/2	821.07	1 1/2	459.05	1 1/2	102.07	1 1/2		1 1/2			
3/4	2,245.27	3/4	1,883.23	3/4	1,521.20	3/4	1,163.07	3/4	813.53	3/4	451.51	3/4	94.62	3/4		3/4			

CERTIFIED CHART FOR THE ABOVE NAMED TANK ONLY.

STRAPPED: 11/16/2018 SW
CALCULATED: 11/19/2018 CL
PRINTED: 11/20/2018

CANCELS AND SUPERCEDES
ALL PRIOR TO 11/20/18

PRECISION MEASUREMENT
& ANALYSIS, INC.

P.O. Box 2092

Pearland, Texas 77588

<http://www.pmacorp.net>

R. J. Jones



BARGE "EMS 510"

3 PORT ULLAGE TABLE

CAPACITIES GIVEN IN BARRELS OF 42 U.S. GALLONS

0 FT.			1 FT.			2 FT.			3 FT.			4 FT.			5 FT.			6 FT.			7 FT.			8 FT.			9 FT.		
IN			IN			IN			IN			IN			IN			IN			IN			IN			IN		
0		0	0		0	0		0	4,337.43	0		0		0	3,993.51	0		3,802.01	0		3,607.82	0		3,432.92	0		3,297.80		
1/4		1/4	1/4		1/4	1/4		1/4	4,333.43	1/4		1/4		1/4	3,989.58	1/4		3,797.97	1/4		3,603.77	1/4		3,428.44	1/4		3,293.30		
1/2		1/2	1/2		1/2	1/2		1/2	4,329.44	1/2		1/2		1/2	3,985.81	1/2		3,793.92	1/2		3,599.73	1/2		3,424.40	1/2		3,289.26		
3/4		3/4	3/4		3/4	3/4		3/4	4,325.45	3/4		3/4		3/4	3,981.94	3/4		3,789.88	3/4		3,595.68	3/4		3,420.35	3/4		3,285.21		
1		1	1		1	1		1	4,321.45	1		1		1	3,978.08	1		3,785.83	1		3,591.64	1		3,416.31	1		3,281.17		
1/4		1/4	1/4		1/4	1/4		1/4	4,317.46	1/4		1/4		1/4	3,974.21	1/4		3,781.79	1/4		3,587.59	1/4		3,412.26	1/4		3,277.12		
1/2		1/2	1/2		1/2	1/2		1/2	4,313.47	1/2		1/2		1/2	3,970.32	1/2		3,777.74	1/2		3,583.55	1/2		3,408.21	1/2		3,273.07		
3/4		3/4	3/4		3/4	3/4		3/4	4,309.48	3/4		3/4		3/4	3,966.42	3/4		3,773.69	3/4		3,579.50	3/4		3,404.26	3/4		3,268.13		
2		2	2		2	2		2	4,305.48	2		2		2	3,962.52	2		3,769.65	2		3,575.45	2		3,399.92	2		3,264.78		
1/4		1/4	1/4		1/4	1/4		1/4	4,301.49	1/4		1/4		1/4	3,958.63	1/4		3,765.60	1/4		3,571.41	1/4		3,395.98	1/4		3,260.84		
1/2		1/2	1/2		1/2	1/2		1/2	4,297.55	1/2		1/2		1/2	3,954.70	1/2		3,761.56	1/2		3,567.36	1/2		3,391.84	1/2		3,256.70		
3/4		3/4	3/4		3/4	3/4		3/4	4,293.61	3/4		3/4		3/4	3,950.78	3/4		3,757.57	3/4		3,563.32	3/4		3,387.31	3/4		3,252.15		
3		3	3		3	3		3	4,289.67	3		3		3	3,946.85	3		3,753.47	3		3,559.27	3		3,383.33	3		3,248.17		
1/4		1/4	1/4		1/4	1/4		1/4	4,285.73	1/4		1/4		1/4	3,942.92	1/4		3,749.42	1/4		3,555.23	1/4		3,379.80	1/4		3,244.64		
1/2		1/2	1/2		1/2	1/2		1/2	4,281.74	1/2		1/2		1/2	3,939.07	1/2		3,745.37	1/2		3,551.18	1/2		3,375.77	1/2		3,240.69		
3/4		3/4	3/4		3/4	3/4		3/4	4,277.74	3/4		3/4		3/4	3,935.01	3/4		3,741.33	3/4		3,547.13	3/4		3,371.78	3/4		3,236.70		
4		4	4		4	4		4	4,273.74	4		4		4	3,931.06	4		3,737.28	4		3,543.09	4		3,367.73	4		3,232.64		
1/4		1/4	1/4		1/4	1/4		1/4	4,269.74	1/4		1/4		1/4	3,927.10	1/4		3,733.24	1/4		3,539.04	1/4		3,363.78	1/4		3,228.70		
1/2		1/2	1/2		1/2	1/2		1/2	4,265.74	1/2		1/2		1/2	3,923.11	1/2		3,729.19	1/2		3,535.00	1/2		3,359.54	1/2		3,224.62		
3/4		3/4	3/4		3/4	3/4		3/4	4,261.74	3/4		3/4		3/4	3,919.12	3/4		3,725.15	3/4		3,530.95	3/4		3,355.08	3/4		3,220.70		
5		5	5		5	5		5	4,257.74	5		5		5	3,915.13	5		3,721.10	5		3,526.91	5		3,350.62	5		3,215.54		
1/4		1/4	1/4		1/4	1/4		1/4	4,253.74	1/4		1/4		1/4	3,911.14	1/4		3,717.05	1/4		3,522.86	1/4		3,346.64	1/4		3,210.66		
1/2		1/2	1/2		1/2	1/2		1/2	4,249.74	1/2		1/2		1/2	3,907.11	1/2		3,713.01	1/2		3,518.39	1/2		3,342.68	1/2		3,205.68		
3/4		3/4	3/4		3/4	3/4		3/4	4,245.74	3/4		3/4		3/4	3,903.09	3/4		3,708.96	3/4		3,513.91	3/4		3,340.64	3/4		3,200.70		
6		6	6		6	6		6	4,241.74	6		6		6	3,899.07	6		3,704.92	6		3,509.44	6		3,336.60	6		3,195.74		
1/4		1/4	1/4		1/4	1/4		1/4	4,237.74	1/4		1/4		1/4	3,895.05	1/4		3,700.87	1/4		3,505.36	1/4		3,332.66	1/4		3,191.74		
1/2		1/2	1/2		1/2	1/2		1/2	4,233.74	1/2		1/2		1/2	3,891.01	1/2		3,696.83	1/2		3,497.48	1/2		3,328.72	1/2		3,186.82		
3/4		3/4	3/4		3/4	3/4		3/4	4,229.74	3/4		3/4		3/4	3,886.97	3/4		3,692.78	3/4		3,493.33	3/4		3,324.76	3/4		3,182.82		
7		7	7		7	7		7	4,235.74	7		7		7	3,882.92	7		3,688.73	7		3,488.88	7		3,319.80	7		3,177.88		
1/4		1/4	1/4		1/4	1/4		1/4	4,231.74	1/4		1/4		1/4	3,878.88	1/4		3,684.69	1/4		3,484.84	1/4		3,315.76	1/4		3,173.92		
1/2		1/2	1/2		1/2	1/2		1/2	4,227.74	1/2		1/2		1/2	3,874.84	1/2		3,680.64	1/2		3,480.79	1/2		3,311.70	1/2		3,170.00		
3/4		3/4	3/4		3/4	3/4		3/4	4,223.74	3/4		3/4		3/4	3,870.79	3/4		3,676.60	3/4		3,476.84	3/4		3,307.62	3/4		3,168.10		
8		8	8		8	8		8	4,219.74	8		8		8	3,866.74	8		3,672.55	8		3,472.99	8		3,303.50	8		3,164.20		
1/4		1/4	1/4		1/4	1/4		1/4	4,215.74	1/4		1/4		1/4	3,862.70	1/4		3,668.51	1/4		3,468.74	1/4		3,299.22	1/4		3,160.30		
1/2		1/2	1/2		1/2	1/2		1/2	4,211.74	1/2		1/2		1/2	3,858.65	1/2		3,664.46	1/2		3,464.69	1/2		3,295.24	1/2		3,156.40		
3/4		3/4	3/4		3/4	3/4		3/4	4,207.74	3/4		3/4		3/4	3,854.61	3/4		3,660.41	3/4		3,460.64	3/4		3,291.26	3/4		3,152.50		
9		9	9		9	9		9	4,203.74	9		9		9	3,850.56	9		3,656.37	9		3,456.60	9		3,287.20	9		3,148.60		
1/4		1/4	1/4		1/4	1/4		1/4	4,199.74	1/4		1/4		1/4	3,846.52	1/4		3,652.32	1/4		3,452.55	1/4		3,283.22	1/4		3,144.70		
1/2		1/2	1/2		1/2	1/2		1/2	4,195.74	1/2		1/2		1/2	3,842.47	1/2		3,648.28	1/2		3,448.51	1/2		3,279.24	1/2		3,140.80		
3/4		3/4	3/4		3/4	3/4		3/4	4,191.74	3/4		3/4		3/4	3,838.43	3/4		3,644.23	3/4		3,444.46	3/4		3,275.20	3/4		3,136.90		
10		10	10		10	10		10	4,187.74	10		10		10	3,834.38	10		3,640.19	10		3,440.42	10		3,271.16	10		3,132.60		
1/4		1/4	1/4		1/4	1/4		1/4	4,183.74	1/4		1/4		1/4	3,830.33	1/4		3,636.14	1/4		3,436.37	1/4		3,267.20	1/4		3,128.70		
1/2		1/2	1/2		1/2	1/2		1/2	4,179.74	1/2		1/2		1/2	3,826.29	1/2		3,632.09	1/2		3,432.32	1/2		3,263.24	1/2		3,124.20		
3/4		3/4	3/4		3/4	3/4		3/4	4,175.74	3/4		3/4		3/4	3,822.24	3/4		3,628.05	3/4		3,428.28	3/4		3,259.24	3/4		3,120.20		
11		11	11		11	11		11	4,171.74	11		11		11	3,818.20	11		3,624.00	11		3,424.23	11		3,255.20	11		3,116.10		
1/4		1/4	1/4		1/4	1/4		1/4	4,167.74	1/4		1/4		1/4	3,814.15	1/4		3,619.96	1/4		3,420.19	1/4		3,251.20	1/4		3,112.10		
1/2		1/2	1/2		1/2	1/2		1/2	4,163.74	1/2		1/2		1/2	3,810.11	1/2		3,615.91	1/2		3,416.14	1/2		3,247.16	1/2		3,108.10		
3/4		3/4	3/4		3/4	3/4		3/4	4,159.74	3/4		3/4		3/4	3,806.06	3/4		3,611.87	3/4		3,412.17	3/4		3,243.21	3/4		3,104.06		

CERTIFIED CHART FOR THE ABOVE NAMED TANK ONLY.

BARGE STRAPPED AND COMPUTED IN ACCORDANCE WITH MPMS CHAPTER 2.7.

CAPACITY TABLE ONLY APPLIES WHEN BARGE IS ON EVEN KEEL.

CAPACITY TABLE ONLY APPLIES TO ULLAGE GAUGES TAKEN WITH "HERMETIC CLOSED GAUGING DEVICE"

GAUGE POINT: (HERMETIC) LOCATED 10'-06" OFF CENTERLINE AND 42'-00" FORWARD OF AFT BULKHEAD.

PRECISION MEASUREMENT

& ANALYSIS, INC.

P.O. Box 2092

Pearland, Texas 77588

<http://www.pmacorp.net>



BARGE "EMS 510"

3 PORT ULLAGE TABLE

CAPACITIES GIVEN IN BARRELS OF 42 U.S. GALLONS

10 FT.		11 FT.		12 FT.		13 FT.		14 FT.		15 FT.		16 FT.		17 FT.		18 FT.		19 FT.	
IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT
0	2,613.55	0	2,262.93	0	1,892.27	0	1,531.56	0	1,170.89	0	810.52	0	449.83	0	94.27	0			
1/4	2,606.04	1/4	2,245.42	1/4	1,884.76	1/4	1,524.05	1/4	1,163.39	1/4	803.01	1/4	442.31	1/4	86.85	1/4		1/4	
1/2	2,598.53	1/2	2,237.90	1/2	1,877.24	1/2	1,516.53	1/2	1,155.88	1/2	795.49	1/2	434.82	1/2	80.13	1/2		1/2	
3/4	2,591.02	3/4	2,230.39	3/4	1,869.73	3/4	1,509.02	3/4	1,148.38	3/4	787.98	3/4	427.32	3/4	73.41	3/4		3/4	
1	2,583.50	1	2,222.88	1	1,862.21	1	1,501.50	1	1,140.87	1	780.47	1	419.82	1	66.70	1		1	
1/4	2,575.99	1/4	2,215.37	1/4	1,854.70	1/4	1,493.99	1/4	1,133.37	1/4	772.95	1/4	412.33	1/4	59.98	1/4		1/4	
1/2	2,568.48	1/2	2,207.85	1/2	1,847.18	1/2	1,486.47	1/2	1,125.86	1/2	765.44	1/2	404.96	1/2	54.52	1/2		1/2	
3/4	2,560.96	3/4	2,200.34	3/4	1,839.67	3/4	1,478.96	3/4	1,118.36	3/4	757.92	3/4	397.60	3/4	49.05	3/4		3/4	
2	2,553.45	2	2,192.83	2	1,832.15	2	1,471.44	2	1,110.85	2	750.41	2	390.23	2	43.59	2		2	
1/4	2,545.94	1/4	2,185.31	1/4	1,824.64	1/4	1,463.93	1/4	1,103.35	1/4	742.89	1/4	382.86	1/4	38.13	1/4		1/4	
1/2	2,538.42	1/2	2,177.80	1/2	1,817.12	1/2	1,456.41	1/2	1,095.84	1/2	735.38	1/2	375.50	1/2	33.91	1/2		1/2	
3/4	2,530.91	3/4	2,170.29	3/4	1,809.61	3/4	1,448.90	3/4	1,088.34	3/4	727.86	3/4	368.13	3/4	29.70	3/4		3/4	
3	2,523.40	3	2,162.77	3	1,802.09	3	1,441.38	3	1,080.83	3	720.35	3	360.76	3	25.49	3		3	
1/4	2,515.89	1/4	2,155.26	1/4	1,794.58	1/4	1,433.87	1/4	1,073.33	1/4	712.84	1/4	353.40	1/4	21.28	1/4		1/4	
1/2	2,508.37	1/2	2,147.75	1/2	1,787.06	1/2	1,426.35	1/2	1,065.82	1/2	705.32	1/2	346.03	1/2		1/2		1/2	
3/4	2,500.86	3/4	2,140.24	3/4	1,779.55	3/4	1,418.84	3/4	1,058.32	3/4	697.81	3/4	338.66	3/4		3/4		3/4	
4	2,493.35	4	2,132.72	4	1,772.03	4	1,411.32	4	1,050.81	4	690.29	4	331.30	4	4	4		4	
1/4	2,485.83	1/4	2,125.21	1/4	1,764.52	1/4	1,403.81	1/4	1,043.30	1/4	682.78	1/4	323.93	1/4		1/4		1/4	
1/2	2,478.32	1/2	2,117.70	1/2	1,757.01	1/2	1,396.29	1/2	1,035.80	1/2	675.26	1/2	316.56	1/2		1/2		1/2	
3/4	2,470.81	3/4	2,110.18	3/4	1,749.49	3/4	1,388.78	3/4	1,028.29	3/4	667.75	3/4	309.20	3/4		3/4		3/4	
5	2,463.29	5	2,102.67	5	1,741.98	5	1,381.27	5	1,020.79	5	660.23	5	301.83	5		5		5	
1/4	2,455.78	1/4	2,095.16	1/4	1,734.46	1/4	1,373.75	1/4	1,013.28	1/4	652.72	1/4	294.46	1/4		1/4		1/4	
1/2	2,448.27	1/2	2,087.64	1/2	1,726.95	1/2	1,366.24	1/2	1,005.78	1/2	645.20	1/2	287.10	1/2		1/2		1/2	
3/4	2,440.76	3/4	2,080.13	3/4	1,719.43	3/4	1,358.72	3/4	998.27	3/4	637.69	3/4	279.73	3/4		3/4		3/4	
6	2,433.24	6	2,072.62	6	1,711.92	6	1,351.21	6	990.77	6	630.18	6	272.36	6		6		6	
1/4	2,425.73	1/4	2,065.11	1/4	1,704.40	1/4	1,343.69	1/4	983.26	1/4	622.66	1/4	265.00	1/4		1/4		1/4	
1/2	2,418.22	1/2	2,057.59	1/2	1,696.89	1/2	1,336.18	1/2	975.76	1/2	615.15	1/2	257.63	1/2		1/2		1/2	
3/4	2,410.70	3/4	2,050.08	3/4	1,689.37	3/4	1,328.66	3/4	968.25	3/4	607.63	3/4	250.26	3/4		3/4		3/4	
7	2,403.19	7	2,042.57	7	1,681.86	7	1,321.15	7	960.75	7	600.12	7	242.90	7		7		7	
1/4	2,395.68	1/4	2,035.05	1/4	1,674.34	1/4	1,313.63	1/4	953.24	1/4	592.60	1/4	235.53	1/4		1/4		1/4	
1/2	2,388.16	1/2	2,027.54	1/2	1,666.83	1/2	1,306.12	1/2	945.74	1/2	585.09	1/2	228.16	1/2		1/2		1/2	
3/4	2,380.65	3/4	2,020.02	3/4	1,659.31	3/4	1,298.60	3/4	938.23	3/4	577.57	3/4	220.80	3/4		3/4		3/4	
8	2,373.14	8	2,012.51	8	1,651.80	8	1,291.09	8	930.72	8	570.06	8	213.43	8		8		8	
1/4	2,365.63	1/4	2,004.99	1/4	1,644.28	1/4	1,283.57	1/4	923.22	1/4	562.55	1/4	206.06	1/4		1/4		1/4	
1/2	2,358.11	1/2	1,997.48	1/2	1,636.77	1/2	1,276.06	1/2	915.71	1/2	555.03	1/2	198.68	1/2		1/2		1/2	
3/4	2,350.60	3/4	1,989.96	3/4	1,629.25	3/4	1,268.54	3/4	908.20	3/4	547.52	3/4	191.30	3/4		3/4		3/4	
9	2,343.09	9	1,982.45	9	1,621.74	9	1,261.03	9	900.69	9	540.00	9	183.91	9		9		9	
1/4	2,335.57	1/4	1,974.93	1/4	1,614.22	1/4	1,253.51	1/4	893.18	1/4	532.49	1/4	176.53	1/4		1/4		1/4	
1/2	2,328.06	1/2	1,967.42	1/2	1,606.71	1/2	1,246.00	1/2	885.67	1/2	524.97	1/2	169.03	1/2		1/2		1/2	
3/4	2,320.55	3/4	1,959.90	3/4	1,599.19	3/4	1,238.48	3/4	878.15	3/4	517.46	3/4	161.53	3/4		3/4		3/4	
10	2,313.03	10	1,952.39	10	1,591.68	10	1,230.97	10	870.64	10	509.94	10	154.03	10		10		10	
1/4	2,305.52	1/4	1,944.88	1/4	1,584.16	1/4	1,223.46	1/4	863.13	1/4	502.43	1/4	146.53	1/4		1/4		1/4	
1/2	2,298.01	1/2	1,937.36	1/2	1,576.65	1/2	1,215.94	1/2	855.61	1/2	494.91	1/2	139.03	1/2		1/2		1/2	
3/4	2,290.50	3/4	1,929.85	3/4	1,569.14	3/4	1,208.43	3/4	848.10	3/4	487.40	3/4	131.53	3/4		3/4		3/4	
11	2,282.98	11	1,922.33	11	1,561.62	11	1,200.92	11	840.58	11	479.89	11	124.03	11		11		11	
1/4	2,275.47	1/4	1,914.82	1/4	1,554.11	1/4	1,193.41	1/4	833.07	1/4	472.37	1/4	116.53	1/4		1/4		1/4	
1/2	2,267.96	1/2	1,907.30	1/2	1,546.59	1/2	1,185.91	1/2	825.55	1/2	464.86	1/2	109.11	1/2		1/2		1/2	
3/4	2,260.44	3/4	1,899.79	3/4	1,539.08	3/4	1,178.40	3/4	818.04	3/4	457.34	3/4	101.59	3/4		3/4		3/4	

CERTIFIED CHART FOR THE ABOVE NAMED TANK ONLY.

STRAPPED: 11/16/2018 SW
CALCULATED: 11/19/2018 CL
PRINTED: 11/20/2018

CANCELS AND SUPERCEDES
ALL PRIOR TO 11/20/18

PRECISION MEASUREMENT
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Paul J. Parnell



BARGE "EMS 510"

3 STBD ULLAGE TABLE

CAPACITIES GIVEN IN BARRELS OF 42 U.S. GALLONS

0 FT.		1 FT.		2 FT.		3 FT.		4 FT.		5 FT.		6 FT.		7 FT.		8 FT.		9 FT.	
IN	0 FT.	IN	1 FT.	IN	2 FT.	IN	3 FT.	IN	4 FT.	IN	5 FT.	IN	6 FT.	IN	7 FT.	IN	8 FT.	IN	9 FT.
0	0	0	0	0	0	0	4,309.04	0	4,140.86	0	3,966.43	0	3,775.59	0	3,582.04	0	3,307.76	0	2,949.34
1/4	1/4	1/4	1/4	1/4	1/4	1/4	4,305.06	1/4	4,137.43	1/4	3,962.61	1/4	3,771.56	1/4	3,578.01	1/4	3,300.29	1/4	2,941.86
1/2	1/2	1/2	1/2	1/2	1/2	1/2	4,301.08	1/2	4,133.98	1/2	3,958.76	1/2	3,767.52	1/2	3,573.97	1/2	3,292.84	1/2	2,934.39
3/4	3/4	3/4	3/4	3/4	3/4	3/4	4,297.10	3/4	4,130.52	3/4	3,954.91	3/4	3,763.49	3/4	3,569.94	3/4	3,285.39	3/4	2,926.91
1	1	1	1	1	1	1	4,293.12	1	4,127.07	1	3,951.06	1	3,759.46	1	3,565.91	1	3,277.93	1	2,919.43
1/4	1/4	1/4	1/4	1/4	1/4	1/4	4,289.14	1/4	4,123.61	1/4	3,947.20	1/4	3,755.43	1/4	3,561.88	1/4	3,270.48	1/4	2,911.95
1/2	1/2	1/2	1/2	1/2	1/2	1/2	4,285.16	1/2	4,120.12	1/2	3,943.32	1/2	3,751.40	1/2	3,557.85	1/2	3,263.03	1/2	2,904.47
3/4	3/4	3/4	3/4	3/4	3/4	3/4	4,281.19	3/4	4,116.64	3/4	3,939.44	3/4	3,747.36	3/4	3,553.81	3/4	3,255.58	3/4	2,896.99
2	2	2	2	2	2	2	4,277.21	2	4,113.15	2	3,935.56	2	3,743.33	2	3,549.78	2	3,248.12	2	2,889.51
1/4	1/4	1/4	1/4	1/4	1/4	1/4	4,273.23	1/4	4,109.66	1/4	3,931.67	1/4	3,739.30	1/4	3,545.75	1/4	3,240.67	1/4	2,882.03
1/2	1/2	1/2	1/2	1/2	1/2	1/2	4,269.30	1/2	4,106.13	1/2	3,927.76	1/2	3,735.27	1/2	3,541.72	1/2	3,233.22	1/2	2,874.54
3/4	3/4	3/4	3/4	3/4	3/4	3/4	4,265.37	3/4	4,102.59	3/4	3,923.85	3/4	3,731.23	3/4	3,537.68	3/4	3,225.77	3/4	2,867.06
3	3	3	3	3	3	3	4,261.45	3	4,098.06	3	3,919.94	3	3,727.20	3	3,533.65	3	3,218.32	3	2,859.57
1/4	1/4	1/4	1/4	1/4	1/4	1/4	4,257.52	1/4	4,095.52	1/4	3,916.02	1/4	3,723.17	1/4	3,529.62	1/4	3,210.86	1/4	2,852.08
1/2	1/2	1/2	1/2	1/2	1/2	1/2	4,254.00	1/2	4,091.96	1/2	3,912.08	1/2	3,719.14	1/2	3,525.59	1/2	3,203.41	1/2	2,844.60
3/4	3/4	3/4	3/4	3/4	3/4	3/4	4,250.49	3/4	4,088.39	3/4	3,908.14	3/4	3,715.11	3/4	3,521.55	3/4	3,195.96	3/4	2,837.11
4	4	4	4	4	4	4	4,246.97	4	4,084.82	4	3,904.20	4	3,711.07	4	3,517.52	4	3,188.51	4	2,829.62
1/4	1/4	1/4	1/4	1/4	1/4	1/4	4,243.46	1/4	4,081.25	1/4	3,900.25	1/4	3,707.04	1/4	3,513.49	1/4	3,181.05	1/4	2,822.14
1/2	1/2	1/2	1/2	1/2	1/2	1/2	4,240.26	1/2	4,077.65	1/2	3,896.28	1/2	3,703.01	1/2	3,509.46	1/2	3,173.60	1/2	2,814.65
3/4	3/4	3/4	3/4	3/4	3/4	3/4	4,237.06	3/4	4,074.06	3/4	3,892.30	3/4	3,698.98	3/4	3,505.43	3/4	3,166.15	3/4	2,807.16
5	5	5	5	5	5	5	4,233.85	5	4,070.46	5	3,888.32	5	3,694.94	5	3,501.39	5	3,158.70	5	2,799.68
1/4	1/4	1/4	1/4	1/4	1/4	1/4	4,230.65	1/4	4,066.86	1/4	3,884.34	1/4	3,690.91	1/4	3,497.36	1/4	3,151.24	1/4	2,792.19
1/2	1/2	1/2	1/2	1/2	1/2	1/2	4,227.42	1/2	4,063.23	1/2	3,880.34	1/2	3,686.88	1/2	3,492.90	1/2	3,143.79	1/2	2,784.70
3/4	3/4	3/4	3/4	3/4	3/4	3/4	4,224.18	3/4	4,059.61	3/4	3,876.33	3/4	3,682.85	3/4	3,488.44	3/4	3,136.33	3/4	2,777.21
6	6	6	6	6	6	6	4,220.95	6	4,055.98	6	3,872.32	6	3,678.81	6	3,483.98	6	3,128.88	6	2,769.72
1/4	1/4	1/4	1/4	1/4	1/4	1/4	4,217.71	1/4	4,052.35	1/4	3,868.31	1/4	3,674.78	1/4	3,479.51	1/4	3,121.42	1/4	2,762.24
1/2	1/2	1/2	1/2	1/2	1/2	1/2	4,214.45	1/2	4,048.69	1/2	3,864.28	1/2	3,670.75	1/2	3,472.05	1/2	3,113.93	1/2	2,754.75
3/4	3/4	3/4	3/4	3/4	3/4	3/4	4,211.18	3/4	4,045.04	3/4	3,860.26	3/4	3,666.72	3/4	3,464.58	3/4	3,106.45	3/4	2,747.26
7	7	7	7	7	7	7	4,207.91	7	4,041.38	7	3,856.23	7	3,662.69	7	3,457.11	7	3,098.96	7	2,739.77
1/4	1/4	1/4	1/4	1/4	1/4	1/4	4,204.64	1/4	4,037.72	1/4	3,852.20	1/4	3,658.65	1/4	3,449.64	1/4	3,091.47	1/4	2,732.28
1/2	1/2	1/2	1/2	1/2	1/2	1/2	4,201.34	1/2	4,034.03	1/2	3,848.17	1/2	3,654.62	1/2	3,442.17	1/2	3,083.99	1/2	2,724.89
3/4	3/4	3/4	3/4	3/4	3/4	3/4	4,198.05	3/4	4,030.34	3/4	3,844.14	3/4	3,650.59	3/4	3,434.71	3/4	3,076.50	3/4	2,717.50
8	8	8	8	8	8	8	4,194.75	8	4,026.64	8	3,840.11	8	3,646.56	8	3,427.24	8	3,069.02	8	2,710.11
1/4	1/4	1/4	1/4	1/4	1/4	1/4	4,191.45	1/4	4,022.95	1/4	3,836.07	1/4	3,642.52	1/4	3,419.77	1/4	3,061.53	1/4	2,702.11
1/2	1/2	1/2	1/2	1/2	1/2	1/2	4,188.12	1/2	4,019.23	1/2	3,832.04	1/2	3,638.49	1/2	3,412.30	1/2	3,054.05	1/2	2,695.32
3/4	3/4	3/4	3/4	3/4	3/4	3/4	4,184.79	3/4	4,015.50	3/4	3,828.01	3/4	3,634.46	3/4	3,404.83	3/4	3,046.57	3/4	2,687.93
9	9	9	9	9	9	9	4,181.47	9	4,011.78	9	3,823.98	9	3,630.43	9	3,397.37	9	3,039.09	9	2,680.54
1/4	1/4	1/4	1/4	1/4	1/4	1/4	4,178.14	1/4	4,008.05	1/4	3,819.94	1/4	3,626.39	1/4	3,389.90	1/4	3,031.61	1/4	2,673.14
1/2	1/2	1/2	1/2	1/2	1/2	1/2	4,174.78	1/2	4,004.30	1/2	3,815.91	1/2	3,622.36	1/2	3,382.43	1/2	3,024.13	1/2	2,665.75
3/4	3/4	3/4	3/4	3/4	3/4	3/4	4,171.42	3/4	4,000.54	3/4	3,811.88	3/4	3,618.33	3/4	3,374.96	3/4	3,016.66	3/4	2,658.36
10	10	10	10	10	10	10	4,168.06	10	3,996.79	10	3,807.85	10	3,614.30	10	3,367.50	10	3,009.18	10	2,650.96
1/4	1/4	1/4	1/4	1/4	1/4	1/4	4,164.70	1/4	3,993.03	1/4	3,803.82	1/4	3,610.27	1/4	3,360.03	1/4	3,001.70	1/4	2,643.57
1/2	1/2	1/2	1/2	1/2	1/2	1/2	4,161.31	1/2	3,989.25	1/2	3,799.78	1/2	3,606.20	1/2	3,352.56	1/2	2,994.22	1/2	2,636.17
3/4	3/4	3/4	3/4	3/4	3/4	3/4	4,157.92	3/4	3,985.46	3/4	3,795.75	3/4	3,602.23	3/4	3,345.09	3/4	2,986.74	3/4	2,628.76
11	11	11	11	11	11	11	4,154.53	11	3,981.68	11	3,791.72	11	3,598.17	11	3,337.62	11	2,979.26	11	2,621.35
1/4	1/4	1/4	1/4	1/4	1/4	1/4	4,151.13	1/4	3,977.89	1/4	3,787.59	1/4	3,594.14	1/4	3,330.16	1/4	2,971.78	1/4	2,613.95
1/2	1/2	1/2	1/2	1/2	1/2	1/2	4,147.71	1/2	3,974.07	1/2	3,783.65	1/2	3,590.10	1/2	3,322.69	1/2	2,964.30	1/2	2,606.45
3/4	3/4	3/4	3/4	3/4	3/4	3/4	4,144.28	3/4	3,970.25	3/4	3,779.62	3/4	3,586.07	3/4	3,315.22	3/4	2,956.82	3/4	2,598.95

BARGE STRAPPED AND COMPUTED IN ACCORDANCE WITH MPMS CHAPTER 2.7.

CAPACITY TABLE ONLY APPLIES WHEN BARGE IS ON EVEN KEEL.

CAPACITY TABLE ONLY APPLIES TO EXTREME HEIGHT OF TANK.

CAPACITY TABLE ONLY APPLIES TO ULLAGE GAUGES TAKEN WITH "HERMETIC CLOSED GAUGING DEVICE"

GAUGE POINT: (HERMETIC) LOCATED 10'-06" OFF CENTERLINE AND 42'-00" FORWARD OF AFT BULKHEAD.

CERTIFIED CHART FOR THE ABOVE NAMED TANK ONLY.

PRECISION MEASUREMENT
& ANALYSIS, INC.

P.O. Box 2092

Pearland, Texas 77588

<http://www.pmacorp.net>



BARGE "EMS 510"

3 STBD ULLAGE TABLE

CAPACITIES GIVEN IN BARRELS OF 42 U.S. GALLONS

10 FT.		11 FT.		12 FT.		13 FT.		14 FT.		15 FT.		16 FT.		17 FT.		18 FT.		19 FT.	
IN	0	IN	0	IN	0	IN	0	IN	0	IN	0	IN	0	IN	0	IN	0	IN	0
0	2,591.45	0	2,231.41	0	1,871.34	0	1,511.22	0	1,154.00	0	809.24	0	449.27	0	94.16	0			
1/4	2,583.95	1/4	2,223.91	1/4	1,863.84	1/4	1,503.72	1/4	1,146.58	1/4	801.98	1/4	441.76	1/4	86.75	1/4			
1/2	2,576.45	1/2	2,216.41	1/2	1,856.34	1/2	1,496.22	1/2	1,139.42	1/2	794.48	1/2	434.28	1/2	80.05	1/2			
3/4	2,568.95	3/4	2,208.91	3/4	1,848.83	3/4	1,488.73	3/4	1,132.25	3/4	786.97	3/4	426.79	3/4	73.36	3/4			
1	2,561.45	1	2,201.41	1	1,841.33	1	1,481.23	1	1,125.08	1	779.47	1	419.31	1	66.66	1			
1/4	2,553.95	1/4	2,193.91	1/4	1,833.83	1/4	1,473.74	1/4	1,117.92	1/4	771.97	1/4	411.82	1/4	59.96	1/4			
1/2	2,546.45	1/2	2,186.41	1/2	1,826.33	1/2	1,466.29	1/2	1,110.75	1/2	764.46	1/2	404.46	1/2	54.51	1/2			
3/4	2,538.95	3/4	2,178.91	3/4	1,818.82	3/4	1,458.85	3/4	1,103.58	3/4	756.96	3/4	397.11	3/4	49.05	3/4			
2	2,531.45	2	2,171.41	2	1,811.32	2	1,451.41	2	1,096.42	2	749.45	2	389.75	2	43.60	2			
1/4	2,523.95	1/4	2,163.91	1/4	1,803.82	1/4	1,443.97	1/4	1,089.25	1/4	741.95	1/4	382.39	1/4	38.14	1/4			
1/2	2,516.45	1/2	2,156.41	1/2	1,796.32	1/2	1,436.53	1/2	1,082.08	1/2	734.44	1/2	375.04	1/2	33.93	1/2			
3/4	2,508.94	3/4	2,148.91	3/4	1,788.81	3/4	1,429.09	3/4	1,074.92	3/4	726.94	3/4	367.68	3/4	29.71	3/4			
3	2,501.44	3	2,141.40	3	1,781.31	3	1,421.65	3	1,067.75	3	719.43	3	360.32	3	25.50	3			
1/4	2,493.94	1/4	2,133.90	1/4	1,773.81	1/4	1,414.21	1/4	1,060.58	1/4	711.93	1/4	352.97	1/4	21.28	1/4			
1/2	2,486.44	1/2	2,126.40	1/2	1,766.31	1/2	1,406.77	1/2	1,053.42	1/2	704.42	1/2	345.61	1/2		1/2			
3/4	2,478.94	3/4	2,118.90	3/4	1,758.80	3/4	1,399.33	3/4	1,046.25	3/4	696.92	3/4	338.25	3/4		3/4			
4	2,471.44	4	2,111.40	4	1,751.30	4	1,391.89	4	1,039.08	4	689.42	4	330.90	4		4			
1/4	2,463.94	1/4	2,103.90	1/4	1,743.80	1/4	1,384.45	1/4	1,031.92	1/4	681.91	1/4	323.54	1/4		1/4			
1/2	2,456.44	1/2	2,096.40	1/2	1,736.30	1/2	1,377.01	1/2	1,024.75	1/2	674.41	1/2	316.18	1/2		1/2			
3/4	2,448.94	3/4	2,088.90	3/4	1,728.79	3/4	1,369.57	3/4	1,017.58	3/4	666.90	3/4	308.83	3/4		3/4			
5	2,441.44	5	2,081.40	5	1,721.29	5	1,362.13	5	1,010.42	5	659.40	5	301.47	5		5			
1/4	2,433.94	1/4	2,073.90	1/4	1,713.79	1/4	1,354.68	1/4	1,003.25	1/4	651.89	1/4	294.11	1/4		1/4			
1/2	2,426.44	1/2	2,066.40	1/2	1,706.29	1/2	1,347.24	1/2	996.09	1/2	644.39	1/2	286.76	1/2		1/2			
3/4	2,418.93	3/4	2,058.90	3/4	1,698.78	3/4	1,339.80	3/4	988.92	3/4	636.88	3/4	279.40	3/4		3/4			
6	2,411.43	6	2,051.40	6	1,691.28	6	1,332.36	6	981.75	6	629.38	6	272.04	6		6			
1/4	2,403.93	1/4	2,043.89	1/4	1,683.78	1/4	1,324.92	1/4	974.59	1/4	621.87	1/4	264.69	1/4		1/4			
1/2	2,396.43	1/2	2,036.39	1/2	1,676.28	1/2	1,317.48	1/2	967.42	1/2	614.37	1/2	257.33	1/2		1/2			
3/4	2,388.93	3/4	2,028.89	3/4	1,668.77	3/4	1,310.04	3/4	960.25	3/4	606.86	3/4	249.97	3/4		3/4			
7	2,381.43	7	2,021.39	7	1,661.27	7	1,302.60	7	953.09	7	599.36	7	242.61	7		7			
1/4	2,373.93	1/4	2,013.89	1/4	1,653.77	1/4	1,295.16	1/4	945.92	1/4	591.86	1/4	235.26	1/4		1/4			
1/2	2,366.43	1/2	2,006.39	1/2	1,646.26	1/2	1,287.72	1/2	938.75	1/2	584.35	1/2	227.90	1/2		1/2			
3/4	2,358.93	3/4	1,998.89	3/4	1,638.76	3/4	1,280.28	3/4	931.58	3/4	576.85	3/4	220.54	3/4		3/4			
8	2,351.43	8	1,991.38	8	1,631.26	8	1,272.84	8	924.42	8	569.34	8	213.19	8		8			
1/4	2,343.93	1/4	1,983.88	1/4	1,623.76	1/4	1,265.40	1/4	917.25	1/4	561.84	1/4	205.83	1/4		1/4			
1/2	2,336.43	1/2	1,976.38	1/2	1,616.25	1/2	1,257.96	1/2	910.08	1/2	554.33	1/2	198.46	1/2		1/2			
3/4	2,328.92	3/4	1,968.88	3/4	1,608.75	3/4	1,250.52	3/4	902.91	3/4	546.83	3/4	191.08	3/4		3/4			
9	2,321.42	9	1,961.37	9	1,601.25	9	1,243.08	9	895.73	9	539.32	9	183.71	9		9			
1/4	2,313.92	1/4	1,953.87	1/4	1,593.75	1/4	1,235.64	1/4	888.56	1/4	531.82	1/4	176.34	1/4		1/4			
1/2	2,306.42	1/2	1,946.37	1/2	1,586.24	1/2	1,228.22	1/2	881.37	1/2	524.31	1/2	168.85	1/2		1/2			
3/4	2,298.92	3/4	1,938.87	3/4	1,578.74	3/4	1,220.79	3/4	874.18	3/4	516.81	3/4	161.36	3/4		3/4			
10	2,291.42	10	1,931.36	10	1,571.24	10	1,213.37	10	866.98	10	509.30	10	153.87	10		10			
1/4	2,283.92	1/4	1,923.86	1/4	1,563.74	1/4	1,205.95	1/4	859.79	1/4	501.80	1/4	146.38	1/4		1/4			
1/2	2,276.42	1/2	1,916.36	1/2	1,556.23	1/2	1,198.52	1/2	852.60	1/2	494.30	1/2	138.88	1/2		1/2			
3/4	2,268.92	3/4	1,908.86	3/4	1,548.73	3/4	1,191.10	3/4	845.40	3/4	486.79	3/4	131.39	3/4		3/4			
11	2,261.42	11	1,901.35	11	1,541.23	11	1,183.67	11	838.21	11	479.29	11	123.89	11		11			
1/4	2,253.92	1/4	1,893.85	1/4	1,533.73	1/4	1,176.24	1/4	831.01	1/4	471.78	1/4	116.40	1/4		1/4			
1/2	2,246.42	1/2	1,886.35	1/2	1,526.22	1/2	1,168.83	1/2	823.75	1/2	464.28	1/2	108.98	1/2		1/2			
3/4	2,238.92	3/4	1,878.85	3/4	1,518.72	3/4	1,161.41	3/4	816.50	3/4	456.77	3/4	101.57	3/4		3/4			

CERTIFIED CHART FOR THE ABOVE NAMED TANK ONLY.

STRAPPED: 11/16/2018 SW
CALCULATED: 11/19/2018 CL
PRINTED: 11/20/2018

CANCELLED AND SUPERCEDES
ALL PRIOR TO 11/2018

PRECISION MEASUREMENT
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